Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-5. Cancelled

6. **(Original)** A method of modulating the expression of a target gene in a host cell, wherein the host cell includes a first gene expression cassette comprising a first polynucleotide encoding a first polypeptide comprising:

(i) a transactivation domain;

(ii) a DNA-binding domain; and

(iii) a Group H nuclear receptor ligand binding domain;

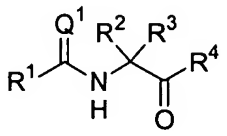
a second gene expression cassette comprising:

(i) a response element capable of binding to said DNA binding domain;

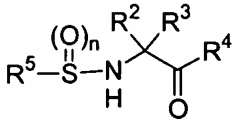
(ii) a promoter that is activated by the transactivation domain; and

(iii) said target gene;

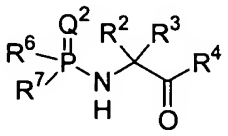
the method comprising contacting said host cell with a compound of formula:



I



II



III

wherein Q^1 and Q^2 are independently selected from the group consisting of O and S;

n = 1 or 2;

R^1 is

i. $(C_1\text{-}C_6)$alkyl, $(C_3\text{-}C_6)$cycloalkyl, $(C_1\text{-}C_6)$haloalkyl, $(C_3\text{-}C_6)$halocycloalkyl, $(C_2\text{-}C_6)$alkenyl, $(C_2\text{-}C_6)$haloalkenyl, $(C_2\text{-}C_6)$alkynyl, $(C_2\text{-}C_6)$haloalkynyl, $(C_1\text{-}C_6)$alkoxy, $(C_3\text{-}C_6)$cycloalkoxy, $(C_1\text{-}C_6)$haloalkoxy, $(C_3\text{-}C_6)$halocycloalkoxy, $(C_2\text{-}C_6)$alkenyloxy, $(C_2\text{-}C_6)$alkynyloxy, $(C_1\text{-}C_6)$alkylthio, $(C_3\text{-}C_6)$cycloalkylthio, $(C_1\text{-}C_6)$haloalkylthio, $(C_3\text{-}C_6)$halocycloalkylthio, $(C_1\text{-}C_6)$alkylamino, $(C_3\text{-}C_6)$cycloalkylamino, $(C_1\text{-}C_6)$haloalkylamino, $(C_3\text{-}$

C_6)halocycloalkylamino, di(C_1-C_6)alkylamino, di(C_3-C_6)cycloalkylamino, di(C_1-C_6)haloalkylamino, di(C_3-C_6)halocycloalkylamino, (C_1-C_6)alkoxy(C_1-C_6)alkyl, (C_1-C_6)althylthio(C_1-C_6)alkyl, (C_1-C_6)alkylsulfinyl(C_1-C_6)alkyl, (C_1-C_6)alkylsulfonyl(C_1-C_6)alkyl, (C_1-C_6)alkylamino(C_1-C_6)alkyl, di(C_1-C_6)alkylamino(C_1-C_6)alkyl, (C_1-C_6)alkylcarbonyl(C_1-C_6)alkyl, or cyano(C_1-C_6)alkyl; or

ii. unsubstituted or substituted phenyl, 1-naphthyl, 2-naphthyl, phenyl(C_1-C_3)alkyl, phenyl(C_2-C_3)alkenyl, naphthyl(C_1-C_3)alkyl, phenoxy(C_1-C_3)alkyl, phenylamino, pyridyl, pyrazinyl, pyridazinyl, pyrimidinyl, furanyl, thiophenyl, benzothiophenyl, benzofuranyl, isoxazolyl, imidazolyl or other heterocyclyl, where the substituents are independently selected from one to four of the following:

i cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_6)alkyl, (C_3-C_6)cycloalkyl, (C_1-C_6)haloalkyl, (C_3-C_6)halocycloalkyl, (C_2-C_6)alkenyl, (C_3-C_6)cycloalkenyl, (C_3-C_6)alkadienyl, (C_2-C_6)alkynyl, (C_1-C_6)alkoxy, (C_3-C_6)cycloalkoxy, (C_1-C_6)haloalkoxy, (C_3-C_6)cyclohaloalkoxy, (C_2-C_6)alkenyloxy, (C_2-C_6)alkynyloxy, (C_1-C_6)alkythio, (C_3-C_6)cycloalkylthio, (C_1-C_6)haloalkylthio, (C_3-C_6)halocycloalkythio, (C_2-C_6)alkenylthio, (C_2-C_6)alkynylthio, (C_1-C_6)alkylsulfinyl, (C_3-C_6)cycloalkysulfinyl, (C_1-C_6)haloalkylsulfinyl, (C_3-C_6)halocycloalkylsulfinyl, (C_2-C_6)alkenylsulfinyl, (C_3-C_6)cycloalkenylsulfinyl, (C_2-C_6)alkynylsulfinyl, (C_1-C_6)alkylsulfonyl, (C_3-C_6)cycloalkysulfonyl, (C_1-C_6)haloalkylsulfonyl, (C_3-C_6)halocycloalkylsulfonyl, (C_1-C_6)alkylsulfinyl, (C_3-C_6)cycloalkysulfinyl, (C_1-C_6)haloalkylsulfinyl, (C_3-C_6)halocycloalkylsulfinyl, (C_1-C_6)alkylamino, (C_3-C_6)cycloalkylamino, di(C_1-C_6)alkylamino, di(C_3-C_6)(cycloalkyl)amino, (C_1-C_6)alkoxy(C_1-C_6)alkyl, (C_3-C_6)cycloalkoxyalkyl, (C_1-C_6)alkoxy(C_3-C_6)cycloalkyl, (C_1-C_6)alkylthio(C_1-C_6)alkyl, (C_1-C_6)alkylsulfinyl(C_1-C_6)alkyl, (C_1-C_6)alkylsulfonyl(C_1-C_6)alkyl, (C_1-C_6)alkylamino(C_1-C_6)alkyl, di(C_1-C_6)alkylamino(C_1-C_6)alkyl, (C_1-C_6)alkylcarbonyl, (C_3-C_6)cycloalkylcarbonyl, (C_1-C_6)alkoxycarbonyl, (C_1-C_6)alkylaminocarbonyl, (C_3-C_6)cycloalkylaminocarbonyl, di(C_1-C_6)alkylaminocarbonyl, di(C_3-C_6)(cycloalkyl)aminocarbonyl, cyano(C_1-C_6)alkyl, or tri(C_1-C_6)alkylsilyl; or

ii unsubstituted or substituted phenyl, phenyl(C_1-C_6)alkyl, heterocyclyl, phenoxy, heterocyclyloxy, benzoyl, heterocyclylcarbonyl, phenylthio, heterocyclylthio,

phenylsulfonyl, or heterocyclylsulfonyl wherein one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl or cyano(C_1-C_3)alkyl;

wherein in said substituted phenyl, 1-naphthyl, 2-naphthyl, phenyl(C_1-C_3)alkyl, phenyl(C_2-C_3)alkenyl, naphthyl(C_1-C_3)alkyl, phenoxy(C_1-C_3)alkyl, phenylamino, pyridyl, pyrazinyl, pyridazinyl, pyrimidinyl, furanyl, thiophenyl, benzothiophenyl, benzofuranyl, isoxazolyl, imidazolyl or other heterocyclyl, two adjacent substituted positions may be joined together with the atoms to which they are attached to form an unsubstituted or substituted, unsaturated, partially unsaturated, or saturated 4-, 5-, 6- or 7-membered carbocyclic or heterocyclic ring wherein:

the heterocyclic ring contains from one to three heteroatoms selected from N, O, or S; and one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, cyano(C_1-C_3)alkyl, oxo, and methoxyimino;

R^2 and R^3 are independently selected from:

(a) cyano, aminocarbonyl, carboxy, (C_1-C_6)alkyl, (C_3-C_6)cycloalkyl, halo(C_1-C_6)alkyl, (C_3-C_6)halocycloalkyl, (C_2-C_6)alkenyl, (C_3-C_6)cycloalkenyl, (C_2-C_6)haloalkenyl, (C_2-C_6)alkynyl, (C_1-C_6)alkylsulfonyl, (C_1-C_6)alkoxy(C_1-C_6)alkyl, (C_1-C_6)althylthio(C_1-C_6)alkyl, (C_1-C_6)alkylsulfinyl(C_1-C_6)alkyl, (C_1-C_6)alkylsulfonyl(C_1-C_6)alkyl, (C_1-C_6)alkylamino(C_1-C_6)alkyl, di(C_1-C_6)alkylamino(C_1-C_6)alkyl, (C_1-C_6)alkylcarbonyl, (C_1-C_6)alkylcarbonyl(C_1-C_6)alkyl, (C_1-C_6)alkylaminocarbonyl, di(C_1-C_6)alkylaminocarbonyl, (C_1-C_6)alkylaminocarbonyl(C_1-C_6)alkyl,

di(C_1-C_6)alkylaminocarbonyl(C_1-C_6)alkyl, (C_1-C_6)alkylcarbonylamino(C_1-C_6)alkyl, (C_1-C_6)alkoxycarbonyl, (C_1-C_6)alkoxycarbonyl(C_1-C_6)alkyl, cyano(C_1-C_6)alkyl, hydroxy(C_1-C_6)alkyl, or carboxy(C_1-C_6)alkyl; or

(b) unsubstituted or substituted phenyl, phenyl(C_1-C_6)alkyl, benzoyl, naphthyl, pyridyl, pyrazinyl, pyridazinyl, pyrimidinyl, furanyl, thiophenyl, benzothiophenyl, benzofuranyl, isoxazolyl, imidazolyl or other heterocyclyl, heterocyclylcarbonyl, wherein one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, and cyano(C_1-C_3)alkyl;

wherein R^2 and R^3 may be joined together with the carbon to which they are attached to form an unsubstituted or substituted, partially unsaturated or saturated 3-, 4-, 5-, 6-, 7- or 8-membered carbocyclic or heterocyclic ring wherein the heterocyclic ring contains from one to three heteroatoms selected from O, N, or S; and one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_4)alkoxycarbonyl, (C_1-C_4)alkoxycarbonyl(C_1-C_4)alkyl, (C_1-C_4)alkoxycarbonylcarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, cyano(C_1-C_3)alkyl, oxo, methoxyimino, and spiro-(C_1-C_4)alkadioxy;

R^4 is selected from:

(a) (C_1-C_6)alkyl, (C_3-C_6)cycloalkyl, (C_1-C_6)haloalkyl, (C_3-C_6)halocycloalkyl, (C_2-C_6)alkenyl, (C_2-C_6)haloalkenyl, (C_2-C_6)alkynyl, (C_2-C_6)haloalkynyl, (C_1-C_6)alkoxy, (C_3-C_6)cycloalkoxy, (C_1-C_6)haloalkoxy, (C_3-C_6)halocycloalkoxy, (C_2-C_6)alkenyloxy, (C_2-C_6)alkynyloxy, (C_1-C_6)alkylthio, (C_3-C_6)cycloalkylthio, (C_1-C_6)haloalkylthio, (C_3-C_6)halocycloalkylthio, (C_1-C_6)alkylamino, (C_3-C_6)cycloalkylamino, (C_1-C_6)haloalkylamino, (C_3-

C_6)halocycloalkylamino, di(C_1-C_6)alkylamino, di(C_3-C_6)cycloalkylamino, di(C_1-C_6)haloalkylamino, di(C_3-C_6)halocycloalkylamino, (C_1-C_6)alkoxy(C_1-C_6)alkyl, (C_1-C_6)althylthio(C_1-C_6)alkyl, (C_1-C_6)alkylsulfinyl(C_1-C_6)alkyl, (C_1-C_6)alkylsulfonyl(C_1-C_6)alkyl, (C_1-C_6)alkylamino(C_1-C_6)alkyl, di(C_1-C_6)alkylamino(C_1-C_6)alkyl, (C_1-C_6)alkylcarbonyl(C_1-C_6)alkyl, or cyano(C_1-C_6)alkyl; or

(b) unsubstituted or substituted phenyl, 1-naphthyl, 2-naphthyl, phenyl(C_1-C_3)alkyl, phenyl(C_2-C_3)alkenyl, naphthyl(C_1-C_3)alkyl, phenoxy(C_1-C_3)alkyl, phenylamino, pyridyl, pyrazinyl, pyridazinyl, pyrimidinyl, furanyl, thiophenyl, benzothiophenyl, benzofuranyl, isoxazolyl, imidazolyl or other heterocyclyl, wherein one to four substituents are independently selected from:

i cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_6)alkyl, (C_3-C_6)cycloalkyl, (C_1-C_6)haloalkyl, (C_3-C_6)halocycloalkyl, (C_2-C_6)alkenyl, (C_3-C_6)cycloalkenyl, (C_3-C_6)alkadienyl, (C_2-C_6)alkynyl, (C_1-C_6)alkoxy, (C_3-C_6)cycloalkoxy, (C_1-C_6)haloalkoxy, (C_3-C_6)cyclohaloalkoxy, (C_2-C_6)alkenyloxy, (C_2-C_6)alkynyloxy, (C_1-C_6)alkythio, (C_3-C_6)cycloalkylthio, (C_1-C_6)haloalkylthio, (C_3-C_6)halocycloalkythio, (C_2-C_6)alkenylthio, (C_2-C_6)alkynylthio, (C_1-C_6)alkylsulfinyl, (C_3-C_6)cycloalkysulfinyl, (C_1-C_6)haloalkylsulfinyl, (C_3-C_6)halocycloalkylsulfinyl, (C_2-C_6)alkenylsulfinyl, (C_3-C_6)cycloalkenylsulfinyl, (C_2-C_6)alkynylsulfinyl, (C_1-C_6)alkylsulfonyl, (C_3-C_6)cycloalkysulfonyl, (C_1-C_6)haloalkylsulfonyl, (C_3-C_6)halocycloalkylsulfonyl, (C_1-C_6)alkylsulfinyl, (C_3-C_6)cycloalkysulfinyl, (C_1-C_6)haloalkylsulfinyl, (C_3-C_6)halocycloalkylsulfinyl, (C_1-C_6)alkylamino, (C_3-C_6)cycloalkylamino, di(C_1-C_6)alkylamino, di(C_3-C_6)(cycloalkyl)amino, (C_1-C_6)alkoxy(C_1-C_6)alkyl, (C_3-C_6)cycloalkoxyalkyl, (C_1-C_6)alkoxy(C_3-C_6)cycloalkyl, (C_1-C_6)alkylthio(C_1-C_6)alkyl, (C_1-C_6)alkylsulfinyl(C_1-C_6)alkyl, (C_1-C_6)alkylsulfonyl(C_1-C_6)alkyl, (C_1-C_6)alkylamino(C_1-C_6)alkyl, di(C_1-C_6)alkylamino(C_1-C_6)alkyl, (C_1-C_6)alkylcarbonyl, (C_3-C_6)cycloalkylcarbonyl, (C_1-C_6)alkoxycarbonyl, (C_1-C_6)alkylaminocarbonyl, (C_3-C_6)cycloalkylaminocarbonyl, di(C_1-C_6)alkylaminocarbonyl, di(C_3-C_6)(cycloalkyl)aminocarbonyl, cyano(C_1-C_6)alkyl, or tri(C_1-C_6)alkylsilyl; or

ii unsubstituted or substituted phenyl, phenyl(C_1-C_6)alkyl, heterocyclyl, phenoxy, heterocyclyloxy, benzoyl, heterocyclylcarbonyl, phenylthio, heterocyclylthio,

phenylsulfonyl, or heterocyclylsulfonyl, wherein one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl and cyano(C_1-C_3)alkyl;

wherein in said substituted phenyl, 1-naphthyl, 2-naphthyl, phenyl(C_1-C_3)alkyl, phenyl(C_2-C_3)alkenyl, naphthyl(C_1-C_3)alkyl, phenoxy(C_1-C_3)alkyl, phenylamino, pyridyl, pyrazinyl, pyridazinyl, pyrimidinyl, furanyl, thiophenyl, benzothiophenyl, benzofuranyl, isoxazolyl, imidazolyl or other heterocyclyl, two adjacent substituted positions on R^4 may be joined together with the atoms to which they are attached to form an unsubstituted or substituted, unsaturated, partially unsaturated, or saturated 4-, 5-, 6- or 7-membered carbocyclic or heterocyclic ring wherein the heterocyclic ring contains from one to three heteroatoms selected from N, O, or S; and one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, cyano(C_1-C_3)alkyl, oxo, and methoxyimino;

R^5 is:

(a) (C_1-C_6)alkyl, (C_3-C_6)cycloalkyl, (C_1-C_6)haloalkyl, (C_3-C_6)halocycloalkyl, (C_2-C_6)alkenyl, (C_2-C_6)haloalkenyl, (C_2-C_6)alkynyl, (C_2-C_6)haloalkynyl, (C_1-C_6)alkoxy(C_1-C_6)alkyl, (C_1-C_6)althylthio(C_1-C_6)alkyl, (C_1-C_6)alkylsulfinyl(C_1-C_6)alkyl, (C_1-C_6)alkylsulfonyl(C_1-C_6)alkyl, (C_1-C_6)alkylamino(C_1-C_6)alkyl, di(C_1-C_6)alkylamino(C_1-C_6)alkyl, (C_1-C_6)alkylcarbonyl(C_1-C_6)alkyl, or cyano(C_1-C_6)alkyl; or

(b) unsubstituted or substituted phenyl, 1-naphthyl, 2-naphthyl, phenyl(C_1-C_3)alkyl, phenyl(C_2-C_3)alkenyl, naphthyl(C_1-C_3)alkyl, phenoxy(C_1-C_3)alkyl, phenylamino, pyridyl, pyrazinyl, pyridazinyl, pyrimidinyl, furanyl, thiophenyl, benzothiophenyl, benzofuranyl, isoxazolyl, imidazolyl or other heterocyclyl, where one to four substituents are independently selected from:

i cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_6)alkyl, (C_3-C_6)cycloalkyl, (C_1-C_6)haloalkyl, (C_3-C_6)halocycloalkyl, (C_2-C_6)alkenyl, (C_3-C_6)cycloalkenyl, (C_3-C_6)alkadienyl, (C_2-C_6)alkynyl, (C_1-C_6)alkoxy, (C_3-C_6)cycloalkoxy, (C_1-C_6)haloalkoxy, (C_3-C_6)cyclohaloalkoxy, (C_2-C_6)alkenyloxy, (C_2-C_6)alkynyloxy, (C_1-C_6)alkythio, (C_3-C_6)cycloalkylthio, (C_1-C_6)haloalkylthio, (C_3-C_6)halocycloalkythio, (C_2-C_6)alkenylthio, (C_2-C_6)alkynylthio, (C_1-C_6)alkylsulfinyl, (C_3-C_6)cycloalkysulfinyl, (C_1-C_6)haloalkylsulfinyl, (C_3-C_6)halocycloalkylsulfinyl, (C_2-C_6)alkenylsulfinyl, (C_3-C_6)cycloalkenylsulfinyl, (C_2-C_6)alkynylsulfinyl, (C_1-C_6)alkylsulfonyl, (C_3-C_6)cycloalkysulfonyl, (C_1-C_6)haloalkylsulfonyl, (C_3-C_6)halocycloalkylsulfonyl, (C_1-C_6)alkylsulfinyl, (C_3-C_6)cycloalkysulfinyl, (C_1-C_6)haloalkylsulfinyl, (C_3-C_6)halocycloalkylsulfinyl, (C_1-C_6)alkylamino, (C_3-C_6)cycloalkylamino, di(C_1-C_6)alkylamino, di(C_3-C_6)(cycloalkyl)amino, (C_1-C_6)alkoxy(C_1-C_6)alkyl, (C_3-C_6)cycloalkoxyalkyl, (C_1-C_6)alkoxy(C_3-C_6)cycloalkyl, (C_1-C_6)alkylthio(C_1-C_6)alkyl, (C_1-C_6)alkylsulfinyl(C_1-C_6)alkyl, (C_1-C_6)alkylsulfonyl(C_1-C_6)alkyl, (C_1-C_6)alkylamino(C_1-C_6)alkyl, di(C_1-C_6)alkylamino(C_1-C_6)alkyl, (C_1-C_6)alkylcarbonyl, (C_3-C_6)cycloalkylcarbonyl, (C_1-C_6)alkoxycarbonyl, (C_1-C_6)alkylaminocarbonyl, (C_3-C_6)cycloalkylaminocarbonyl, di(C_1-C_6)alkylaminocarbonyl, di(C_3-C_6)(cycloalkyl)aminocarbonyl, cyano(C_1-C_6)alkyl, or tri(C_1-C_6)alkylsilyl; or

ii unsubstituted or substituted phenyl, phenyl(C_1-C_6)alkyl, heterocyclyl, phenoxy, heterocyclyloxy, benzoyl, heterocyclylcarbonyl, phenylthio, heterocyclylthio, phenylsulfonyl, or heterocyclylsulfonyl, wherein one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-

C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, and cyano(C_1-C_3)alkyl;

wherein in said substituted phenyl, 1-naphthyl, 2-naphthyl, phenyl(C_1-C_3)alkyl, phenyl(C_2-C_3)alkenyl, naphthyl(C_1-C_3)alkyl, phenoxy(C_1-C_3)alkyl, phenylamino, pyridyl, pyrazinyl, pyridazinyl, pyrimidinyl, furanyl, thiophenyl, benzothiophenyl, benzofuranyl, isoxazolyl, imidazolyl or other heterocyclyl, two adjacent substituted positions may be joined together with the atoms to which they are attached to form an unsubstituted or substituted, unsaturated, partially unsaturated, or saturated 4-, 5-, 6- or 7-membered carbocyclic or heterocyclic ring wherein the heterocyclic ring contains from one to three heteroatoms selected from N, O, or S; and one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, cyano(C_1-C_3)alkyl, oxo, and methoxyimino; and

R^6 and R^7 are independently selected from:

(a) (C_1-C_6)alkyl, (C_3-C_6)cycloalkyl, (C_1-C_6)haloalkyl, (C_3-C_6)halocycloalkyl, (C_2-C_6)alkenyl, (C_2-C_6)haloalkenyl, (C_2-C_6)alkynyl, (C_2-C_6)haloalkynyl, (C_1-C_6)alkoxy, (C_3-C_6)cycloalkoxy, (C_1-C_6)haloalkoxy, (C_3-C_6)halocycloalkoxy, (C_2-C_6)alkenyloxy, (C_2-C_6)alkynyloxy, (C_1-C_6)alkylthio, (C_3-C_6)cycloalkylthio, (C_1-C_6)haloalkylthio, (C_3-C_6)halocycloalkylthio, (C_1-C_6)alkylamino, (C_3-C_6)cycloalkylamino, (C_1-C_6)haloalkylamino, (C_3-C_6)halocycloalkylamino, di(C_1-C_6)alkylamino, di(C_3-C_6)cycloalkylamino, di(C_1-C_6)haloalkylamino, di(C_3-C_6)halocycloalkylamino, (C_1-C_6)alkoxy(C_1-C_6)alkyl, (C_1-C_6)althylthio(C_1-C_6)alkyl, (C_1-C_6)alkylsulfinyl(C_1-C_6)alkyl, (C_1-C_6)alkylsulfonyl(C_1-C_6)alkyl, (C_1-C_6)alkylamino(C_1-C_6)alkyl, di(C_1-C_6)alkylamino(C_1-C_6)alkyl, (C_1-C_6)alkylcarbonyl(C_1-C_6)alkyl, or cyano(C_1-C_6)alkyl; or

(b) unsubstituted or substituted phenyl, phenyl(C_1-C_6)alkyl, heterocyclyl, phenoxy, heterocycloxy, phenylthio, heterocyclylthio, naphthyl, phenylamino, heterocyclylamino, N-

phenyl-N-(C_1-C_6)alkylamino, or N-heterocyclyl-N-(C_1-C_6)alkylamino wherein one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, and cyano(C_1-C_3)alkyl;

wherein R^6 and R^7 may be joined together with the phosphorus to which they are attached to form an unsaturated, partially unsaturated, or saturated, unsubstituted or substituted 4- to 7-membered heterocyclic ring wherein the heterocyclic ring contains one phosphorus and from zero to three heteroatoms selected from N, O, or S; and from one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, cyano(C_1-C_3)alkyl, oxo, and methoxyimino.

7. **(Original)** The method of claim 6 wherein the compound is of the specified formula and:

Q^1 is O and Q^2 is S,

n = 2;

R^1 is unsubstituted or substituted phenyl, 1-naphthyl, 2-naphthyl, phenyl(C_1-C_3)alkyl, phenyl(C_2-C_3)alkenyl, naphthyl(C_1-C_3)alkyl, phenoxy(C_1-C_3)alkyl, phenylamino, pyridyl, pyrazinyl, pyridazinyl, pyrimidinyl, furanyl, thiophenyl, benzothiophenyl, benzofuranyl, isoxazolyl, imidazolyl or other heterocyclyl, where the substituents are independently selected from the group consisting of one to four of the following groups: cyano, nitro, halo, amino, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_3)alkenyloxy, (C_3)alkynyloxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_3)alkenylthio, (C_3)alkynylthio, (C_1-C_3)alkylsulfonyl, (C_1-

C_3)haloalkylsulfonyl, (C_1-C_3)alkylsulfinyl, (C_1-C_3)haloalkylsulfinyl (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfinyl(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, and cyano(C_1-C_3)alkyl;

and wherein in said substituted phenyl, 1-naphthyl, 2-naphthyl, phenyl(C_1-C_3)alkyl, phenyl(C_2-C_3)alkenyl, naphthyl(C_1-C_3)alkyl, phenoxy(C_1-C_3)alkyl, phenylamino, pyridyl, pyrazinyl, pyridazinyl, pyrimidinyl, furanyl, thiophenyl, benzothiophenyl, benzofuranyl, isoxazolyl, imidazolyl or other heterocyclyl, two adjacent substituted positions may be joined together with the atoms to which they are attached to form an unsubstituted or substituted, unsaturated, partially unsaturated, or saturated 4-, 5-, 6- or 7-membered carbocyclic or heterocyclic ring wherein:

the heterocyclic ring contains from one to three heteroatoms selected from N, O, or S; and

one to four substituents are independently selected from the group consisting of: cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, cyano(C_1-C_3)alkyl, oxo, and methoxyimino;

R^4 is selected from unsubstituted or substituted phenyl, 1-naphthyl, 2-naphthyl, phenyl(C_1-C_3)alkyl, phenyl(C_2-C_3)alkenyl, naphthyl(C_1-C_3)alkyl, phenoxy(C_1-C_3)alkyl, phenylamino, pyridyl, pyrazinyl, pyridazinyl, pyrimidinyl, furanyl, thiophenyl, benzothiophenyl, benzofuranyl, isoxazolyl, imidazolyl or other heterocyclyl, wherein one to four substituents are independently selected from:

(a) cyano, nitro, halo, carboxy, formyl, hydroxy, amino, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_3)alkenyloxy, (C_3)alkynyloxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfinyl, (C_1-C_3)haloalkylsulfinyl, (C_1-C_3)alkylsulfonyl, (C_1-C_3)haloalkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfinyl(C_1-C_2)alkyl, (C_1-

C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, or cyano(C_1-C_3)alkyl; or

(b) unsubstituted or substituted phenyl, phenyl(C_1-C_2)alkyl, heterocyclyl, phenoxy, heterocyclyloxy, benzoyl, heterocyclylcarbonyl, phenylthio, heterocyclylthio, phenylsulfonyl, or heterocyclylsulfonyl, wherein one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, and cyano(C_1-C_3)alkyl; and

wherein two adjacent positions on R^4 may be joined together with the atoms to which they are attached to form an unsubstituted or substituted, unsaturated, partially unsaturated, or saturated 4-, 5-, 6- or 7-membered carbocyclic or heterocyclic ring wherein:
the heterocyclic ring contains from one to three heteroatoms selected from N, O, or S; and
one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, cyano(C_1-C_3)alkyl, oxo, and methoxyimino; and

R^6 and R^7 are independently selected from:

(a) (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_3)alkenyloxy, (C_3)alkynyloxy, (C_1-C_3)alkylthio, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)althylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfinyl(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_2)alkylcarbonyl(C_1-C_2)alkyl, or cyano(C_1-C_3)alkyl; or

(b) unsubstituted or substituted phenyl, phenyl(C_1-C_2)alkyl, phenoxy, phenylthio, naphthyl, phenylamino, or N-phenyl-N-(C_1-C_3)alkylamino, wherein one to four substituents are independently selected from the group consisting of cyano, nitro, halo, formyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, and cyano(C_1-C_3)alkyl;
wherein $\mathbf{R^6}$ and $\mathbf{R^7}$ may be joined together with the phosphorus to which they are attached to form an unsaturated, partially unsaturated, or saturated, unsubstituted or substituted 4- to 7-membered heterocyclic ring wherein the heterocyclic ring contains one phosphorus and from zero to three heteroatoms selected from N, O, or S; and from one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, cyano(C_1-C_3)alkyl, oxo, and methoxyimino.

8. **(Original)** The method of Claim 7 wherein the compound is of the specified formula and R^1 is unsubstituted or substituted phenyl, 1-naphthyl, 2-naphthyl, phenyl(C_1-C_3)alkyl, phenyl(C_2-C_3)alkenyl, naphthyl(C_1-C_3)alkyl, phenoxy(C_1-C_3)alkyl, phenylamino, pyridyl, pyrazinyl, pyridazinyl, pyrimidinyl, furanyl, thiophenyl, benzothiophenyl, benzofuranyl, isoxazolyl, imidazolyl or other heterocyclyl, wherein the substituents are independently selected from the group consisting of one to four of the following groups: halo, (C_1-C_3)alkyl, (C_1-C_3)alkoxy, (C_1-C_3)alkythio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylsulfinyl, (C_1-C_3)alkylamino, and di(C_1-C_3)alkylamino;

wherein in said substituted phenyl, naphthyl or heterocyclyl, two adjacent substituted positions may be joined together with the atoms to which they are attached to form an unsubstituted or substituted, unsaturated, partially unsaturated, or saturated 4-, 5-, 6- or 7-membered carbocyclic or heterocyclic ring wherein:

the heterocyclic ring contains from one to three heteroatoms selected from N, O, or S; and

one to four substituents are independently selected from the group consisting of: cyano, (C_1-C_3)alkyl, (C_1-C_3)alkoxy, (C_1-C_3)alkythio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, oxo, and methoxyimino;

R^2 and R^3 are independently selected from the group consisting of: (C_1-C_6)alkyl, (C_3-C_6)cycloalkyl, halo(C_1-C_6)alkyl, (C_3-C_6)halocycloalkyl, (C_2-C_6)alkenyl, (C_3-C_6)cycloalkenyl, (C_2-C_6)haloalkenyl, (C_2-C_6)alkynyl, (C_1-C_3)alkoxy(C_1-C_3)alkyl, (C_1-C_3)althylthio(C_1-C_3)alkyl, (C_1-C_3)alkylsulfinyl(C_1-C_3)alkyl, (C_1-C_3)alkylsulfonyl(C_1-C_3)alkyl, (C_1-C_3)alkylamino(C_1-C_3)alkyl, di(C_1-C_3)alkylamino(C_1-C_3)alkyl, (C_1-C_6)alkylcarbonyl, (C_1-C_3)alkylcarbonyl(C_1-C_3)alkyl, (C_1-C_6)alkylaminocarbonyl, di(C_1-C_6)alkylaminocarbonyl, (C_1-C_3)alkylaminocarbonyl(C_1-C_3)alkyl, di(C_1-C_3)alkylaminocarbonyl(C_1-C_3)alkyl, (C_1-C_3)alkylcarbonylamino(C_1-C_3)alkyl, (C_1-C_6)alkoxycarbonyl, (C_1-C_3)alkoxycarbonyl(C_1-C_3)alkyl, cyano(C_1-C_6)alkyl, hydroxy(C_1-C_6)alkyl, and carboxy(C_1-C_6)alkyl;

wherein R^2 and R^3 may be joined together with the carbon to which they are attached to form an unsubstituted or substituted, partially unsaturated or saturated 3-, 4-, 5-, 6- or 7-membered carbocyclic or heterocyclic ring, wherein the heterocyclic ring contains from one to three heteroatoms selected from O or S; and one to four substituents are independently selected from the group consisting of cyano, (C_1-C_3)alkyl, (C_1-C_3)alkoxy, (C_1-C_3)alkythio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_4)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, and di(C_1-C_3)alkylaminocarbonyl;

R^4 is selected from unsubstituted or substituted phenyl, 1-naphthyl, 2-naphthyl, phenyl(C_1-C_3)alkyl, phenyl(C_2-C_3)alkenyl, naphthyl(C_1-C_3)alkyl, phenoxy(C_1-C_3)alkyl, phenylamino, pyridyl, pyrazinyl, pyridazinyl, pyrimidinyl, furanyl, thiophenyl, benzothiophenyl, benzofuranyl, isoxazolyl, imidazolyl or other heterocyclyl, wherein one to four substituents are independently selected from the group consisting of cyano, nitro, halo, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfinyl, (C_1-C_3)haloalkylsulfinyl, (C_1-C_3)alkylsulfonyl, (C_1-C_3)haloalkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfinyl(C_1-

C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, and di(C_1-C_3)alkylaminocarbonyl;

wherein two adjacent positions on R^4 may be joined together with the atoms to which they are attached to form an unsubstituted or substituted, unsaturated, partially unsaturated, or saturated 5-, 6- or 7-membered carbocyclic or heterocyclic ring wherein the heterocyclic ring contains from one to three heteroatoms selected from N, O, or S; and one to four substituents are independently selected from the group consisting of cyano, (C_1-C_3)alkyl, (C_1-C_3)alkoxy, (C_1-C_3)alkythio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_4)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, oxo, and methoxyimino;

R^5 is unsubstituted or substituted phenyl, 1-naphthyl, 2-naphthyl, phenyl(C_1-C_3)alkyl, phenyl(C_2-C_3)alkenyl, naphthyl(C_1-C_3)alkyl, phenoxy(C_1-C_3)alkyl, phenylamino, pyridyl, pyrazinyl, pyridazinyl, pyrimidinyl, furanyl, thiophenyl, benzothiophenyl, benzofuranyl, isoxazolyl, imidazolyl or other heterocyclyl, where one to four substituents are independently selected from the group consisting of: cyano, nitro, halo, amino, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_3)alkenyloxy, (C_3)alkynyloxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_3)alkenylthio, (C_3)alkynylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)haloalkylsulfonyl, (C_1-C_3)alkylsulfinyl, (C_1-C_3)haloalkylsulfinyl (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfinyl(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, and cyano(C_1-C_3)alkyl;

wherein two adjacent positions may be joined together with the atoms to which they are attached to form an unsubstituted or substituted, unsaturated, partially unsaturated, or saturated 4-, 5-, 6- or 7-membered carbocyclic or heterocyclic ring, wherein:
the heterocyclic ring contains from one to three heteroatoms selected from N, O, or S; and
one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-

C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, cyano(C_1-C_3)alkyl, oxo, and methoxyimino; and

R^6 and R^7 are independently selected from the group consisting of (C_1-C_3)alkyl, (C_1-C_3)alkoxy, (C_1-C_3)alkylthio, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, and unsubstituted or substituted phenyl, wherein the substituents are from one to four and are independently selected from the group consisting of cyano, nitro, halo, formyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, and cyano(C_1-C_3)alkyl, wherein **R^6** and **R^7** may be joined together with the phosphorus to which they are attached to form an unsaturated, partially unsaturated, or saturated, unsubstituted or substituted 5- or 6-membered heterocyclic ring wherein the heterocyclic ring contains one phosphorus and from zero to three heteroatoms selected from N, O or S; and from one to four substituents are independently selected from the group consisting of (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, oxo, and methoxyimino.

9. **(Original)** The method of Claim 8 wherein the compound is of the specified formula and:

R^1 is substituted phenyl wherein one to two substituents are independently selected from the group consisting of (C_1-C_2)alkyl and (C_1-C_2)alkoxy;

wherein in said substituted phenyl, two adjacent positions are joined together with the atoms to which they are attached to form an unsubstituted or substituted, unsaturated, partially unsaturated, or saturated 5-, 6- or 7-membered carbocyclic or heterocyclic ring wherein:

the heterocyclic ring contains from one to two oxygen atoms; and

one to four substituents are independently selected from the group consisting of: cyano, (C_1-C_2)alkyl, (C_1-C_2)alkylamino, di(C_1-C_2)alkylamino, (C_1-C_2)alkoxycarbonyl, (C_1-C_2)alkylaminocarbonyl, di(C_1-C_2)alkylaminocarbonyl, oxo, and methoxyimino;

R^2 and R^3 are independently selected from the group consisting of: (C_1-C_6)alkyl, (C_3-C_6)cycloalkyl, halo(C_1-C_6)alkyl, (C_1-C_3)alkoxy(C_1-C_3)alkyl, (C_1-C_3)althylthio(C_1-C_3)alkyl, (C_1-C_3)alkylsulfinyl(C_1-C_3)alkyl, (C_1-C_3)alkylsulfonyl(C_1-C_3)alkyl, (C_1-C_3)alkylamino(C_1-C_3)alkyl, di(C_1-C_3)alkylamino(C_1-C_3)alkyl, (C_1-C_6)alkylcarbonyl, (C_1-C_3)alkylcarbonyl(C_1-C_3)alkyl, (C_1-C_6)alkylaminocarbonyl, di(C_1-C_6)alkylaminocarbonyl, (C_1-C_3)alkylaminocarbonyl(C_1-C_3)alkyl, di(C_1-C_3)alkylaminocarbonyl(C_1-C_3)alkyl, (C_1-C_3)alkylcarbonylamino(C_1-C_3)alkyl, (C_1-C_6)alkoxycarbonyl, and C_1-C_3)alkoxycarbonyl(C_1-C_3)alkyl;
wherein R^2 and R^3 may be joined together with the carbon to which they are attached to form an unsubstituted or substituted, partially unsaturated or saturated 5-, 6- or 7-membered carbocyclic or heterocyclic ring wherein:
the heterocyclic ring contains one heteroatom selected from O or S; and
one to four substituents are independently selected from the group consisting of (C_1-C_3)alkyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_4)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, and di(C_1-C_3)alkylaminocarbonyl;

R^4 is selected from unsubstituted or substituted phenyl or pyridyl wherein one to four substituents are independently selected from the group consisting of (C_1-C_3)alkyl and (C_1-C_3)alkoxy;

R^5 is unsubstituted or substituted phenyl wherein one to two substituents are independently selected from the group consisting of (C_1-C_2)alkyl and (C_1-C_2)alkoxy;

wherein two adjacent positions may be joined together with the atoms to which they are attached to form an unsubstituted or substituted, unsaturated, partially unsaturated, or saturated 5-, 6- or 7-membered carbocyclic or heterocyclic ring, wherein:
the heterocyclic ring contains from one to two oxygen atoms; and
one to four substituents are independently selected from the group consisting of cyano, (C_1-C_2)alkyl, (C_1-C_2)alkylamino, di(C_1-C_2)alkylamino, (C_1-C_2)alkoxycarbonyl, (C_1-C_2)alkylaminocarbonyl, di(C_1-C_2)alkylaminocarbonyl, oxo, and methoxyimino; and

R^6 and R^7 taken together with the phosphorus to which they are attached form a saturated, unsubstituted or substituted 5- or 6-membered heterocyclic ring, wherein the heterocyclic ring

contains one phosphorus and from one to two heteroatoms selected from N, O or S; and from one to four substituents are independently selected from the group consisting of (C_1-C_3)alkyl and (C_1-C_3)haloalkyl.

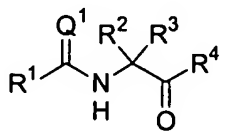
10. **(Original)** The method of Claim 9 wherein the compound is of the specified formula and R^1 is selected from the group consisting of 2-methyl-3,4-methylenedioxyphenyl, 2-ethyl-3,4-methylenedioxyphenyl, 2-methyl-3,4-ethylenedioxyphenyl, 2-ethyl-3,4-ethylenedioxyphenyl, 2-methyl-3,4-oxydimethylenephenyl, 2-ethyl-3,4-oxydimethylenephenyl, 2-methyl-3,4-oxytrimethylenephenyl, and 2-ethyl-3,4-oxytrimethylenephenyl;

R^5 is selected from the group consisting of 4-ethylphenyl, 3-fluoro-4-ethylphenyl, 2-fluoro-4-ethylphenyl, 2,3-dimethylphenyl, 2,3-diethylphenyl, 2-methyl-3-methoxyphenyl, 2-ethyl-3-methoxyphenyl, 2-methyl-3,4-methylenedioxyphenyl, 2-ethyl-3,4-methylenedioxyphenyl, 2-methyl-3,4-ethylenedioxyphenyl, 2-ethyl-3,4-ethylenedioxyphenyl, 2-methyl-3,4-oxydimethylenephenyl, 2-ethyl-3,4-oxydimethylenephenyl, 2-methyl-3,4-oxytrimethylenephenyl, 2-ethyl-3,4-oxytrimethylenephenyl, 2-methyl-3,4-dimethyleneoxyphenyl, 2-ethyl-3,4-dimethyleneoxyphenyl, 2-methyl-3,4-trimethyleneoxyphenyl, and 2-ethyl-3,4-trimethyleneoxyphenyl; and

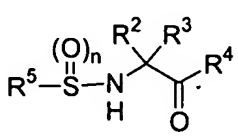
R^6 and R^7 taken together with the phosphorus to which they are attached form a saturated 6-membered heterocyclic ring, wherein the heterocyclic ring contains one phosphorus and two oxygen atoms, and the two oxygen atoms are joined by three carbon atoms having up to four substituents of (C_1-C_2)alkyl.

11. **(Original)** The method of Claim 10 wherein the compound is of the specified formula and R^1 is 2-methyl-3-methoxyphenyl, R^2 and R^3 taken together with the carbon to which they are attached form a cyclohexane ring and R^4 is 3,5-dimethylphenyl or 2-methoxyphenyl.

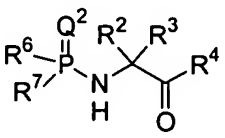
12. **(Original)** A method to modulate the expression of one or more exogenous genes in a subject, comprising administering to the subject an effective amount of a ligand of the formula:



I



II



III

wherein Q^1 and Q^2 are independently selected from the group consisting of O and S;

n = 1 or 2;

R^1 is

(a) (C_1-C_6)alkyl, (C_3-C_6)cycloalkyl, (C_1-C_6)haloalkyl, (C_3-C_6)halocycloalkyl, (C_2-C_6)alkenyl, (C_2-C_6)haloalkenyl, (C_2-C_6)alkynyl, (C_2-C_6)haloalkynyl, (C_1-C_6)alkoxy, (C_3-C_6)cycloalkoxy, (C_1-C_6)haloalkoxy, (C_3-C_6)halocycloalkoxy, (C_2-C_6)alkenyloxy, (C_2-C_6)alkynyloxy, (C_1-C_6)alkylthio, (C_3-C_6)cycloalkylthio, (C_1-C_6)haloalkylthio, (C_3-C_6)halocycloalkylthio, (C_1-C_6)alkylamino, (C_3-C_6)cycloalkylamino, (C_1-C_6)haloalkylamino, (C_3-C_6)halocycloalkylamino, di(C_1-C_6)alkylamino, di(C_3-C_6)cycloalkylamino, di(C_1-C_6)haloalkylamino, di(C_3-C_6)halocycloalkylamino, (C_1-C_6)alkoxy(C_1-C_6)alkyl, (C_1-C_6)althylthio(C_1-C_6)alkyl, (C_1-C_6)alkylsulfinyl(C_1-C_6)alkyl, (C_1-C_6)alkylsulfonyl(C_1-C_6)alkyl, (C_1-C_6)alkylamino(C_1-C_6)alkyl, di(C_1-C_6)alkylamino(C_1-C_6)alkyl, (C_1-C_6)alkylcarbonyl(C_1-C_6)alkyl, or cyano(C_1-C_6)alkyl; or

(b) unsubstituted or substituted phenyl, 1-naphthyl, 2-naphthyl, phenyl(C_1-C_3)alkyl, phenyl(C_2-C_3)alkenyl, naphthyl(C_1-C_3)alkyl, phenoxy(C_1-C_3)alkyl, phenylamino, pyridyl, pyrazinyl, pyridazinyl, pyrimidinyl, furanyl, thiophenyl, benzothiophenyl, benzofuranyl, isoxazolyl, imidazolyl or other heterocyclyl, where the substituents are independently selected from one to four of the following:

i cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_6)alkyl, (C_3-C_6)cycloalkyl, (C_1-C_6)haloalkyl, (C_3-C_6)halocycloalkyl, (C_2-C_6)alkenyl, (C_3-C_6)cycloalkenyl, (C_3-C_6)alkadienyl, (C_2-C_6)alkynyl, (C_1-C_6)alkoxy, (C_3-C_6)cycloalkoxy, (C_1-C_6)haloalkoxy, (C_3-C_6)cyclohaloalkoxy, (C_2-C_6)alkenyloxy, (C_2-C_6)alkynyloxy, (C_1-C_6)alkythio, (C_3-C_6)cycloalkylthio, (C_1-C_6)haloalkylthio, (C_3-C_6)halocycloalkythio, (C_2-C_6)alkenylthio, (C_2-C_6)alkynylthio, (C_1-C_6)alkylsulfinyl, (C_3-C_6)cycloalkysulfinyl, (C_1-C_6)haloalkylsulfinyl, (C_3-C_6)halocycloalkylsulfinyl, (C_2-C_6)alkenylsulfinyl, (C_3-C_6)cycloalkenylsulfinyl, (C_2-C_6)alkynylsulfinyl, (C_1-C_6)alkylsulfonyl, (C_3-C_6)cycloalkysulfonyl, (C_1-C_6)haloalkylsulfonyl, (C_3-C_6)halocycloalkylsulfonyl, (C_1-C_6)alkylsulfinyl, (C_3-C_6)cycloalkysulfinyl, (C_1-C_6)haloalkylsulfinyl, (C_3-C_6)halocycloalkylsulfinyl, (C_1-C_6)alkylamino, (C_3-C_6)cycloalkylamino, di(C_1-C_6)alkylamino, di(C_3-C_6)(cycloalkyl)amino, (C_1-C_6)alkoxy(C_1-C_6)alkyl, (C_3-C_6)cycloalkoxyalkyl, (C_1-C_6)alkoxy(C_3-C_6)cycloalkyl, (C_1-C_6)alkylthio(C_1-C_6)alkyl,

(C_1-C_6)alkylsulfinyl(C_1-C_6)alkyl, (C_1-C_6)alkylsulfonyl(C_1-C_6)alkyl, (C_1-C_6)alkylamino(C_1-C_6)alkyl, di(C_1-C_6)alkylamino(C_1-C_6)alkyl, (C_1-C_6)alkylcarbonyl, (C_3-C_6)cycloalkylcarbonyl, (C_1-C_6)alkoxycarbonyl, (C_1-C_6)alkylaminocarbonyl, (C_3-C_6)cycloalkylaminocarbonyl, di(C_1-C_6)alkylaminocarbonyl, di(C_3-C_6)(cycloalkyl)aminocarbonyl, cyano(C_1-C_6)alkyl, or tri(C_1-C_6)alkylsilyl; or

ii unsubstituted or substituted phenyl, phenyl(C_1-C_6)alkyl, heterocyclyl, phenoxy, heterocyclyloxy, benzoyl, heterocyclylcarbonyl, phenylthio, heterocyclylthio, phenylsulfonyl, or heterocyclylsulfonyl wherein one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl or cyano(C_1-C_3)alkyl;

wherein in said substituted phenyl, 1-naphthyl, 2-naphthyl, phenyl(C_1-C_3)alkyl, phenyl(C_2-C_3)alkenyl, naphthyl(C_1-C_3)alkyl, phenoxy(C_1-C_3)alkyl, phenylamino, pyridyl, pyrazinyl, pyridazinyl, pyrimidinyl, furanyl, thiophenyl, benzothiophenyl, benzofuranyl, isoxazolyl, imidazolyl or other heterocyclyl, two adjacent substituted positions may be joined together with the atoms to which they are attached to form an unsubstituted or substituted, unsaturated, partially unsaturated, or saturated 4-, 5-, 6- or 7-membered carbocyclic or heterocyclic ring wherein:

the heterocyclic ring contains from one to three heteroatoms selected from N, O, or S; and one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, cyano(C_1-C_3)alkyl, oxo, and methoxyimino;

R^2 and R^3 are independently selected from:

(a) cyano, aminocarbonyl, carboxy, (C_1-C_6)alkyl, (C_3-C_6)cycloalkyl, halo(C_1-C_6)alkyl, (C_3-C_6)halocycloalkyl, (C_2-C_6)alkenyl, (C_3-C_6)cycloalkenyl, (C_2-C_6)haloalkenyl, (C_2-C_6)alkynyl, (C_1-C_6)alkylsulfonyl, (C_1-C_6)alkoxy(C_1-C_6)alkyl, (C_1-C_6)althylthio(C_1-C_6)alkyl, (C_1-C_6)alkylsulfinyl(C_1-C_6)alkyl, (C_1-C_6)alkylsulfonyl(C_1-C_6)alkyl, (C_1-C_6)alkylamino(C_1-C_6)alkyl, di(C_1-C_6)alkylamino(C_1-C_6)alkyl, (C_1-C_6)alkylcarbonyl, (C_1-C_6)alkylcarbonyl(C_1-C_6)alkyl, (C_1-C_6)alkylaminocarbonyl, di(C_1-C_6)alkylaminocarbonyl, (C_1-C_6)alkylaminocarbonyl(C_1-C_6)alkyl, di(C_1-C_6)alkylaminocarbonyl(C_1-C_6)alkyl, (C_1-C_6)alkylcarbonylamino(C_1-C_6)alkyl, (C_1-C_6)alkoxycarbonyl, (C_1-C_6)alkoxycarbonyl(C_1-C_6)alkyl, cyano(C_1-C_6)alkyl, hydroxy(C_1-C_6)alkyl, or carboxy(C_1-C_6)alkyl; or

(b) unsubstituted or substituted phenyl, phenyl(C_1-C_6)alkyl, benzoyl, naphthyl, pyridyl, pyrazinyl, pyridazinyl, pyrimidinyl, furanyl, thiophenyl, benzothiophenyl, benzofuranyl, isoxazolyl, imidazolyl or other heterocyclyl, heterocyclylcarbonyl, wherein one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, and cyano(C_1-C_3)alkyl;

wherein R^2 and R^3 may be joined together with the carbon to which they are attached to form an unsubstituted or substituted, partially unsaturated or saturated 3-, 4-, 5-, 6-, 7- or 8-membered carbocyclic or heterocyclic ring wherein the heterocyclic ring contains from one to three heteroatoms selected from O, N, or S; and one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_4)alkoxycarbonyl, (C_1-C_4)alkoxycarbonyl(C_1-C_4)alkyl, $(C_1-$

C_4)alkoxycarbonylcarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, cyano(C_1-C_3)alkyl, oxo, methoxyimino, and spiro-(C_1-C_4)alkadioxy;

R^4 is selected from:

(a) (C_1-C_6)alkyl, (C_3-C_6)cycloalkyl, (C_1-C_6)haloalkyl, (C_3-C_6)halocycloalkyl, (C_2-C_6)alkenyl, (C_2-C_6)haloalkenyl, (C_2-C_6)alkynyl, (C_2-C_6)haloalkynyl, (C_1-C_6)alkoxy, (C_3-C_6)cycloalkoxy, (C_1-C_6)haloalkoxy, (C_3-C_6)halocycloalkoxy, (C_2-C_6)alkenyloxy, (C_2-C_6)alkynyloxy, (C_1-C_6)alkylthio, (C_3-C_6)cycloalkylthio, (C_1-C_6)haloalkylthio, (C_3-C_6)halocycloalkylthio, (C_1-C_6)alkylamino, (C_3-C_6)cycloalkylamino, (C_1-C_6)haloalkylamino, (C_3-C_6)halocycloalkylamino, di(C_1-C_6)alkylamino, di(C_3-C_6)cycloalkylamino, di(C_1-C_6)haloalkylamino, di(C_3-C_6)halocycloalkylamino, (C_1-C_6)alkoxy(C_1-C_6)alkyl, (C_1-C_6)althylthio(C_1-C_6)alkyl, (C_1-C_6)alkylsulfinyl(C_1-C_6)alkyl, (C_1-C_6)alkylsulfonyl(C_1-C_6)alkyl, (C_1-C_6)alkylamino(C_1-C_6)alkyl, di(C_1-C_6)alkylamino(C_1-C_6)alkyl, (C_1-C_6)alkylcarbonyl(C_1-C_6)alkyl, or cyano(C_1-C_6)alkyl; or

(b) unsubstituted or substituted phenyl, 1-naphthyl, 2-naphthyl, phenyl(C_1-C_3)alkyl, phenyl(C_2-C_3)alkenyl, naphthyl(C_1-C_3)alkyl, phenoxy(C_1-C_3)alkyl, phenylamino, pyridyl, pyrazinyl, pyridazinyl, pyrimidinyl, furanyl, thiophenyl, benzothiophenyl, benzofuranyl, isoxazolyl, imidazolyl or other heterocyclyl, wherein one to four substituents are independently selected from:

i cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_6)alkyl, (C_3-C_6)cycloalkyl, (C_1-C_6)haloalkyl, (C_3-C_6)halocycloalkyl, (C_2-C_6)alkenyl, (C_3-C_6)cycloalkenyl, (C_3-C_6)alkadienyl, (C_2-C_6)alkynyl, (C_1-C_6)alkoxy, (C_3-C_6)cycloalkoxy, (C_1-C_6)haloalkoxy, (C_3-C_6)cyclohaloalkoxy, (C_2-C_6)alkenyloxy, (C_2-C_6)alkynyloxy, (C_1-C_6)alkythio, (C_3-C_6)cycloalkylthio, (C_1-C_6)haloalkylthio, (C_3-C_6)halocycloalkythio, (C_2-C_6)alkenylthio, (C_2-C_6)alkynylthio, (C_1-C_6)alkylsulfinyl, (C_3-C_6)cycloalkysulfinyl, (C_1-C_6)haloalkylsulfinyl, (C_3-C_6)halocycloalkylsulfinyl, (C_2-C_6)alkenylsulfinyl, (C_3-C_6)cycloalkenylsulfinyl, (C_2-C_6)alkynylsulfinyl, (C_1-C_6)alkylsulfonyl, (C_3-C_6)cycloalkysulfonyl, (C_1-C_6)haloalkylsulfonyl, (C_3-C_6)halocycloalkylsulfonyl, (C_1-C_6)alkylsulfinyl, (C_3-C_6)cycloalkysulfinyl, (C_1-C_6)haloalkylsulfinyl, (C_3-C_6)halocycloalkylsulfinyl, (C_1-C_6)alkylamino, (C_3-C_6)cycloalkylamino, di(C_1-C_6)alkylamino, di(C_3-C_6)(cycloalkyl)amino, (C_1-C_6)alkoxy(C_1-C_6)alkyl, (C_3-

C_6)cycloalkoxyalkyl, (C_1-C_6)alkoxy(C_3-C_6)cycloalkyl, (C_1-C_6)alkylthio(C_1-C_6)alkyl, (C_1-C_6)alkylsulfinyl(C_1-C_6)alkyl, (C_1-C_6)alkylsulfonyl(C_1-C_6)alkyl, (C_1-C_6)alkylamino(C_1-C_6)alkyl, di(C_1-C_6)alkylamino(C_1-C_6)alkyl, (C_1-C_6)alkylcarbonyl, (C_3-C_6)cycloalkylcarbonyl, (C_1-C_6)alkoxycarbonyl, (C_1-C_6)alkylaminocarbonyl, (C_3-C_6)cycloalkylaminocarbonyl, di(C_1-C_6)alkylaminocarbonyl, di(C_3-C_6)(cycloalkyl)aminocarbonyl, cyano(C_1-C_6)alkyl, or tri(C_1-C_6)alkylsilyl; or

ii unsubstituted or substituted phenyl, phenyl(C_1-C_6)alkyl, heterocyclyl, phenoxy, heterocyclyloxy, benzoyl, heterocyclylcarbonyl, phenylthio, heterocyclylthio, phenylsulfonyl, or heterocyclylsulfonyl, wherein one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl and cyano(C_1-C_3)alkyl;

wherein in said substituted phenyl, 1-naphthyl, 2-naphthyl, phenyl(C_1-C_3)alkyl, phenyl(C_2-C_3)alkenyl, naphthyl(C_1-C_3)alkyl, phenoxy(C_1-C_3)alkyl, phenylamino, pyridyl, pyrazinyl, pyridazinyl, pyrimidinyl, furanyl, thiophenyl, benzothiophenyl, benzofuranyl, isoxazolyl, imidazolyl or other heterocyclyl, two adjacent substituted positions may be joined together with the atoms to which they are attached to form an unsubstituted or substituted, unsaturated, partially unsaturated, or saturated 4-, 5-, 6- or 7-membered carbocyclic or heterocyclic ring wherein the heterocyclic ring contains from one to three heteroatoms selected from N, O, or S; and one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, cyano(C_1-C_3)alkyl, oxo, and methoxyimino;

$\mathbf{R^5}$ is:

(a) $(C_1\text{-}C_6)$alkyl, $(C_3\text{-}C_6)$cycloalkyl, $(C_1\text{-}C_6)$haloalkyl, $(C_3\text{-}C_6)$halocycloalkyl, $(C_2\text{-}C_6)$alkenyl, $(C_2\text{-}C_6)$haloalkenyl, $(C_2\text{-}C_6)$alkynyl, $(C_2\text{-}C_6)$haloalkynyl, $(C_1\text{-}C_6)$alkoxy$(C_1\text{-}C_6)$alkyl, $(C_1\text{-}C_6)$althylthio$(C_1\text{-}C_6)$alkyl, $(C_1\text{-}C_6)$alkylsulfinyl$(C_1\text{-}C_6)$alkyl, $(C_1\text{-}C_6)$alkylsulfonyl$(C_1\text{-}C_6)$alkyl, $(C_1\text{-}C_6)$alkylamino$(C_1\text{-}C_6)$alkyl, di$(C_1\text{-}C_6)$alkylamino$(C_1\text{-}C_6)$alkyl, $(C_1\text{-}C_6)$alkylcarbonyl$(C_1\text{-}C_6)$alkyl, or cyano$(C_1\text{-}C_6)$alkyl; or

(b) unsubstituted or substituted phenyl, 1-naphthyl, 2-naphthyl, phenyl$(C_1\text{-}C_3)$alkyl, phenyl$(C_2\text{-}C_3)$alkenyl, naphthyl$(C_1\text{-}C_3)$alkyl, phenoxy$(C_1\text{-}C_3)$alkyl, phenylamino, pyridyl, pyrazinyl, pyridazinyl, pyrimidinyl, furanyl, thiophenyl, benzothiophenyl, benzofuranyl, isoxazolyl, imidazolyl or other heterocyclyl, where one to four substituents are independently selected from:

i cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, $(C_1\text{-}C_6)$alkyl, $(C_3\text{-}C_6)$cycloalkyl, $(C_1\text{-}C_6)$haloalkyl, $(C_3\text{-}C_6)$halocycloalkyl, $(C_2\text{-}C_6)$alkenyl, $(C_3\text{-}C_6)$cycloalkenyl, $(C_3\text{-}C_6)$alkadienyl, $(C_2\text{-}C_6)$alkynyl, $(C_1\text{-}C_6)$alkoxy, $(C_3\text{-}C_6)$cycloalkoxy, $(C_1\text{-}C_6)$haloalkoxy, $(C_3\text{-}C_6)$cyclohaloalkoxy, $(C_2\text{-}C_6)$alkenyloxy, $(C_2\text{-}C_6)$alkynyloxy, $(C_1\text{-}C_6)$alkythio, $(C_3\text{-}C_6)$cycloalkylthio, $(C_1\text{-}C_6)$haloalkylthio, $(C_3\text{-}C_6)$halocycloalkythio, $(C_2\text{-}C_6)$alkenylthio, $(C_2\text{-}C_6)$alkynylthio, $(C_1\text{-}C_6)$alkylsulfinyl, $(C_3\text{-}C_6)$cycloalkysulfinyl, $(C_1\text{-}C_6)$haloalkylsulfinyl, $(C_3\text{-}C_6)$halocycloalkylsulfinyl, $(C_2\text{-}C_6)$alkenylsulfinyl, $(C_3\text{-}C_6)$cycloalkenylsulfinyl, $(C_2\text{-}C_6)$alkynylsulfinyl, $(C_1\text{-}C_6)$alkylsulfonyl, $(C_3\text{-}C_6)$cycloalkysulfonyl, $(C_1\text{-}C_6)$haloalkylsulfonyl, $(C_3\text{-}C_6)$halocycloalkylsulfonyl, $(C_1\text{-}C_6)$alkylsulfinyl, $(C_3\text{-}C_6)$cycloalkysulfinyl, $(C_1\text{-}C_6)$haloalkylsulfinyl, $(C_3\text{-}C_6)$halocycloalkylsulfinyl, $(C_1\text{-}C_6)$alkylamino, $(C_3\text{-}C_6)$cycloalkylamino, di$(C_1\text{-}C_6)$alkylamino, di$(C_3\text{-}C_6)$(cycloalkyl)amino, $(C_1\text{-}C_6)$alkoxy$(C_1\text{-}C_6)$alkyl, $(C_3\text{-}C_6)$cycloalkoxyalkyl, $(C_1\text{-}C_6)$alkoxy$(C_3\text{-}C_6)$cycloalkyl, $(C_1\text{-}C_6)$alkylthio$(C_1\text{-}C_6)$alkyl, $(C_1\text{-}C_6)$alkylsulfinyl$(C_1\text{-}C_6)$alkyl, $(C_1\text{-}C_6)$alkylsulfonyl$(C_1\text{-}C_6)$alkyl, $(C_1\text{-}C_6)$alkylamino$(C_1\text{-}C_6)$alkyl, di$(C_1\text{-}C_6)$alkylamino$(C_1\text{-}C_6)$alkyl, $(C_1\text{-}C_6)$alkylcarbonyl, $(C_3\text{-}C_6)$cycloalkylcarbonyl, $(C_1\text{-}C_6)$alkoxycarbonyl, $(C_1\text{-}C_6)$alkylaminocarbonyl, $(C_3\text{-}C_6)$cycloalkylaminocarbonyl, di$(C_1\text{-}C_6)$alkylaminocarbonyl, di$(C_3\text{-}C_6)$(cycloalkyl)aminocarbonyl, cyano$(C_1\text{-}C_6)$alkyl, or tri$(C_1\text{-}C_6)$alkylsilyl; or

ii unsubstituted or substituted phenyl, phenyl(C_1-C_6)alkyl, heterocyclyl, phenoxy, heterocyclyloxy, benzoyl, heterocyclylcarbonyl, phenylthio, heterocyclylthio, phenylsulfonyl, or heterocyclylsulfonyl, wherein one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, and cyano(C_1-C_3)alkyl;

wherein in said substituted phenyl, 1-naphthyl, 2-naphthyl, phenyl(C_1-C_3)alkyl, phenyl(C_2-C_3)alkenyl, naphthyl(C_1-C_3)alkyl, phenoxy(C_1-C_3)alkyl, phenylamino, pyridyl, pyrazinyl, pyridazinyl, pyrimidinyl, furanyl, thiophenyl, benzothiophenyl, benzofuranyl, isoxazolyl, imidazolyl or other heterocyclyl, two adjacent substituted positions may be joined together with the atoms to which they are attached to form an unsubstituted or substituted, unsaturated, partially unsaturated, or saturated 4-, 5-, 6- or 7-membered carbocyclic or heterocyclic ring wherein the heterocyclic ring contains from one to three heteroatoms selected from N, O, or S; and one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, cyano(C_1-C_3)alkyl, oxo, and methoxyimino; and

R^6 and R^7 are independently selected from:

(a) (C_1-C_6)alkyl, (C_3-C_6)cycloalkyl, (C_1-C_6)haloalkyl, (C_3-C_6)halocycloalkyl, (C_2-C_6)alkenyl, (C_2-C_6)haloalkenyl, (C_2-C_6)alkynyl, (C_2-C_6)haloalkynyl, (C_1-C_6)alkoxy, (C_3-C_6)cycloalkoxy, (C_1-C_6)haloalkoxy, (C_3-C_6)halocycloalkoxy, (C_2-C_6)alkenyloxy, (C_2-C_6)alkynyloxy, (C_1-C_6)alkylthio, (C_3-C_6)cycloalkylthio, (C_1-C_6)haloalkylthio, (C_3-

C_6)halocycloalkylthio, (C_1-C_6)alkylamino, (C_3-C_6)cycloalkylamino, (C_1-C_6)haloalkylamino, (C_3-C_6)halocycloalkylamino, di(C_1-C_6)alkylamino, di(C_3-C_6)cycloalkylamino, di(C_1-C_6)haloalkylamino, di(C_3-C_6)halocycloalkylamino, (C_1-C_6)alkoxy(C_1-C_6)alkyl, (C_1-C_6)althylthio(C_1-C_6)alkyl, (C_1-C_6)alkylsulfinyl(C_1-C_6)alkyl, (C_1-C_6)alkylsulfonyl(C_1-C_6)alkyl, (C_1-C_6)alkylamino(C_1-C_6)alkyl, di(C_1-C_6)alkylamino(C_1-C_6)alkyl, (C_1-C_6)alkylcarbonyl(C_1-C_6)alkyl, or cyano(C_1-C_6)alkyl; or

(b) unsubstituted or substituted phenyl, phenyl(C_1-C_6)alkyl, heterocyclyl, phenoxy, heterocycloxy, phenylthio, heterocyclylthio, naphthyl, phenylamino, heterocyclylamino, N-phenyl-N-(C_1-C_6)alkylamino, or N-heterocyclyl-N-(C_1-C_6)alkylamino wherein one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, and cyano(C_1-C_3)alkyl;

wherein R^6 and R^7 may be joined together with the phosphorus to which they are attached to form an unsaturated, partially unsaturated, or saturated, unsubstituted or substituted 4- to 7-membered heterocyclic ring wherein the heterocyclic ring contains one phosphorus and from zero to three heteroatoms selected from N, O, or S; and from one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, cyano(C_1-C_3)alkyl, oxo, and methoxyimino;

wherein the cells of the subject contain:

a) an ecdysone receptor complex comprising:

1) a DNA binding domain;

2) a binding domain for the ligand; and

3) a transactivation domain; and

b) a DNA construct comprising:

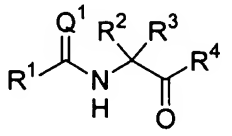
1) the exogenous gene; and

2) a response element; and

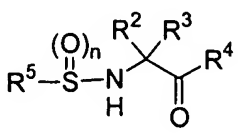
wherein the exogenous gene is under the control of the response element, and binding of the DNA binding domain to the response element in the presence of the ligand results in activation or suppression of the gene.

13. **(Original)** A method for producing a polypeptide comprising the steps of:

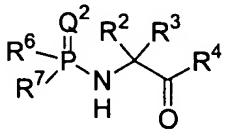
a) selecting a cell which is substantially insensitive to exposure to a ligand of the formula:



I



II



III

wherein Q^1 and Q^2 are independently selected from the group consisting of O and S;

n = 1 or 2;

R^1 is:

(a) $(C_1\text{-}C_6)$alkyl, $(C_3\text{-}C_6)$cycloalkyl, $(C_1\text{-}C_6)$haloalkyl, $(C_3\text{-}C_6)$halocycloalkyl, $(C_2\text{-}C_6)$alkenyl, $(C_2\text{-}C_6)$haloalkenyl, $(C_2\text{-}C_6)$alkynyl, $(C_2\text{-}C_6)$haloalkynyl, $(C_1\text{-}C_6)$alkoxy, $(C_3\text{-}C_6)$cycloalkoxy, $(C_1\text{-}C_6)$haloalkoxy, $(C_3\text{-}C_6)$halocycloalkoxy, $(C_2\text{-}C_6)$alkenyloxy, $(C_2\text{-}C_6)$alkynyloxy, $(C_1\text{-}C_6)$alkylthio, $(C_3\text{-}C_6)$cycloalkylthio, $(C_1\text{-}C_6)$haloalkylthio, $(C_3\text{-}C_6)$halocycloalkylthio, $(C_1\text{-}C_6)$alkylamino, $(C_3\text{-}C_6)$cycloalkylamino, $(C_1\text{-}C_6)$haloalkylamino, $(C_3\text{-}C_6)$halocycloalkylamino, di$(C_1\text{-}C_6)$alkylamino, di$(C_3\text{-}C_6)$cycloalkylamino, di$(C_1\text{-}C_6)$haloalkylamino, di$(C_3\text{-}C_6)$halocycloalkylamino, $(C_1\text{-}C_6)$alkoxy$(C_1\text{-}C_6)$alkyl, $(C_1\text{-}C_6)$althylthio$(C_1\text{-}C_6)$alkyl, $(C_1\text{-}C_6)$alkylsulfinyl$(C_1\text{-}C_6)$alkyl, $(C_1\text{-}C_6)$alkylsulfonyl$(C_1\text{-}C_6)$alkyl, $(C_1\text{-}C_6)$alkylamino$(C_1\text{-}C_6)$alkyl, di$(C_1\text{-}C_6)$alkylamino$(C_1\text{-}C_6)$alkyl, $(C_1\text{-}C_6)$alkylcarbonyl$(C_1\text{-}C_6)$alkyl, or cyano$(C_1\text{-}C_6)$alkyl; or

(b) unsubstituted or substituted phenyl, 1-naphthyl, 2-naphthyl, phenyl$(C_1\text{-}C_3)$alkyl, phenyl$(C_2\text{-}C_3)$alkenyl, naphthyl$(C_1\text{-}C_3)$alkyl, phenoxy$(C_1\text{-}C_3)$alkyl, phenylamino, pyridyl, pyrazinyl, pyridazinyl, pyrimidinyl, furanyl, thiophenyl, benzothiophenyl, benzofuranyl,

isoxazolyl, imidazolyl or other heterocyclyl, where the substituents are independently selected from one to four of the following:

i cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_6)alkyl, (C_3-C_6)cycloalkyl, (C_1-C_6)haloalkyl, (C_3-C_6)halocycloalkyl, (C_2-C_6)alkenyl, (C_3-C_6)cycloalkenyl, (C_3-C_6)alkadienyl, (C_2-C_6)alkynyl, (C_1-C_6)alkoxy, (C_3-C_6)cycloalkoxy, (C_1-C_6)haloalkoxy, (C_3-C_6)cyclohaloalkoxy, (C_2-C_6)alkenyloxy, (C_2-C_6)alkynyloxy, (C_1-C_6)alkythio, (C_3-C_6)cycloalkylthio, (C_1-C_6)haloalkylthio, (C_3-C_6)halocycloalkythio, (C_2-C_6)alkenylthio, (C_2-C_6)alkynylthio, (C_1-C_6)alkylsulfinyl, (C_3-C_6)cycloalkysulfinyl, (C_1-C_6)haloalkylsulfinyl, (C_3-C_6)halocycloalkylsulfinyl, (C_2-C_6)alkenylsulfinyl, (C_3-C_6)cycloalkenylsulfinyl, (C_2-C_6)alkynylsulfinyl, (C_1-C_6)alkylsulfonyl, (C_3-C_6)cycloalkysulfonyl, (C_1-C_6)haloalkylsulfonyl, (C_3-C_6)halocycloalkylsulfonyl, (C_1-C_6)alkylsulfinyl, (C_3-C_6)cycloalkysulfinyl, (C_1-C_6)haloalkylsulfinyl, (C_3-C_6)halocycloalkylsulfinyl, (C_1-C_6)alkylamino, (C_3-C_6)cycloalkylamino, di(C_1-C_6)alkylamino, di(C_3-C_6)(cycloalkyl)amino, (C_1-C_6)alkoxy(C_1-C_6)alkyl, (C_3-C_6)cycloalkoxyalkyl, (C_1-C_6)alkoxy(C_3-C_6)cycloalkyl, (C_1-C_6)alkylthio(C_1-C_6)alkyl, (C_1-C_6)alkylsulfinyl(C_1-C_6)alkyl, (C_1-C_6)alkylsulfonyl(C_1-C_6)alkyl, (C_1-C_6)alkylamino(C_1-C_6)alkyl, di(C_1-C_6)alkylamino(C_1-C_6)alkyl, (C_1-C_6)alkylcarbonyl, (C_3-C_6)cycloalkylcarbonyl, (C_1-C_6)alkoxycarbonyl, (C_1-C_6)alkylaminocarbonyl, (C_3-C_6)cycloalkylaminocarbonyl, di(C_1-C_6)alkylaminocarbonyl, di(C_3-C_6)(cycloalkyl)aminocarbonyl, cyano(C_1-C_6)alkyl, or tri(C_1-C_6)alkylsilyl; or

ii unsubstituted or substituted phenyl, phenyl(C_1-C_6)alkyl, heterocyclyl, phenoxy, heterocyclyloxy, benzoyl, heterocyclylcarbonyl, phenylthio, heterocyclylthio, phenylsulfonyl, or heterocyclylsulfonyl wherein one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl or cyano(C_1-C_3)alkyl;

wherein in said substituted phenyl, 1-naphthyl, 2-naphthyl, phenyl(C_1-C_3)alkyl, phenyl(C_2-C_3)alkenyl, naphthyl(C_1-C_3)alkyl, phenoxy(C_1-C_3)alkyl, phenylamino, pyridyl, pyrazinyl, pyridazinyl, pyrimidinyl, furanyl, thiophenyl, benzothiophenyl, benzofuranyl, isoxazolyl, imidazolyl or other heterocyclyl, two adjacent substituted positions may be joined together with the atoms to which they are attached to form an unsubstituted or substituted, unsaturated, partially unsaturated, or saturated 4-, 5-, 6- or 7-membered carbocyclic or heterocyclic ring wherein:

the heterocyclic ring contains from one to three heteroatoms selected from N, O, or S; and one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, cyano(C_1-C_3)alkyl, oxo, and methoxyimino;

R^2 and R^3 are independently selected from:

1. cyano, aminocarbonyl, carboxy, (C_1-C_6)alkyl, (C_3-C_6)cycloalkyl, halo(C_1-C_6)alkyl, (C_3-C_6)halocycloalkyl, (C_2-C_6)alkenyl, (C_3-C_6)cycloalkenyl, (C_2-C_6)haloalkenyl, (C_2-C_6)alkynyl, (C_1-C_6)alkylsulfonyl, (C_1-C_6)alkoxy(C_1-C_6)alkyl, (C_1-C_6)althylthio(C_1-C_6)alkyl, (C_1-C_6)alkylsulfinyl(C_1-C_6)alkyl, (C_1-C_6)alkylsulfonyl(C_1-C_6)alkyl, (C_1-C_6)alkylamino(C_1-C_6)alkyl, di(C_1-C_6)alkylamino(C_1-C_6)alkyl, (C_1-C_6)alkylcarbonyl, (C_1-C_6)alkylcarbonyl(C_1-C_6)alkyl, (C_1-C_6)alkylaminocarbonyl, di(C_1-C_6)alkylaminocarbonyl, (C_1-C_6)alkylaminocarbonyl(C_1-C_6)alkyl, di(C_1-C_6)alkylaminocarbonyl(C_1-C_6)alkyl, (C_1-C_6)alkylcarbonylamino(C_1-C_6)alkyl, (C_1-C_6)alkoxycarbonyl, (C_1-C_6)alkoxycarbonyl(C_1-C_6)alkyl, cyano(C_1-C_6)alkyl, hydroxy(C_1-C_6)alkyl, or carboxy(C_1-C_6)alkyl; or

2. unsubstituted or substituted phenyl, phenyl(C_1-C_6)alkyl, benzoyl, naphthyl, pyridyl, pyrazinyl, pyridazinyl, pyrimidinyl, furanyl, thiophenyl, benzothiophenyl, benzofuranyl, isoxazolyl, imidazolyl or other heterocyclyl, heterocyclylcarbonyl, wherein one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-

C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, and cyano(C_1-C_3)alkyl;

wherein R^2 and R^3 may be joined together with the carbon to which they are attached to form an unsubstituted or substituted, partially unsaturated or saturated 3-, 4-, 5-, 6-, 7- or 8-membered carbocyclic or heterocyclic ring wherein the heterocyclic ring contains from one to three heteroatoms selected from O, N, or S; and one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_4)alkoxycarbonyl, (C_1-C_4)alkoxycarbonyl(C_1-C_4)alkyl, (C_1-C_4)alkoxycarbonylcarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, cyano(C_1-C_3)alkyl, oxo, methoxyimino, and spiro-(C_1-C_4)alkadioxy;

R^4 is selected from:

(a) (C_1-C_6)alkyl, (C_3-C_6)cycloalkyl, (C_1-C_6)haloalkyl, (C_3-C_6)halocycloalkyl, (C_2-C_6)alkenyl, (C_2-C_6)haloalkenyl, (C_2-C_6)alkynyl, (C_2-C_6)haloalkynyl, (C_1-C_6)alkoxy, (C_3-C_6)cycloalkoxy, (C_1-C_6)haloalkoxy, (C_3-C_6)halocycloalkoxy, (C_2-C_6)alkenyloxy, (C_2-C_6)alkynyloxy, (C_1-C_6)alkylthio, (C_3-C_6)cycloalkylthio, (C_1-C_6)haloalkylthio, (C_3-C_6)halocycloalkylthio, (C_1-C_6)alkylamino, (C_3-C_6)cycloalkylamino, (C_1-C_6)haloalkylamino, (C_3-C_6)halocycloalkylamino, di(C_1-C_6)alkylamino, di(C_3-C_6)cycloalkylamino, di(C_1-C_6)haloalkylamino, di(C_3-C_6)halocycloalkylamino, (C_1-C_6)alkoxy(C_1-C_6)alkyl, (C_1-C_6)althylthio(C_1-C_6)alkyl, (C_1-C_6)alkylsulfinyl(C_1-C_6)alkyl, (C_1-C_6)alkylsulfonyl(C_1-C_6)alkyl, (C_1-C_6)alkylamino(C_1-C_6)alkyl, di(C_1-C_6)alkylamino(C_1-C_6)alkyl, (C_1-C_6)alkylcarbonyl(C_1-C_6)alkyl, or cyano(C_1-C_6)alkyl; or

(b) unsubstituted or substituted phenyl, 1-naphthyl, 2-naphthyl, phenyl(C_1-C_3)alkyl, phenyl(C_2-C_3)alkenyl, naphthyl(C_1-C_3)alkyl, phenoxy(C_1-C_3)alkyl, phenylamino, pyridyl, pyrazinyl, pyridazinyl, pyrimidinyl, furanyl, thiophenyl, benzothiophenyl, benzofuranyl,

isoxazolyl, imidazolyl or other heterocyclyl, wherein one to four substituents are independently selected from:

i cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_6)alkyl, (C_3-C_6)cycloalkyl, (C_1-C_6)haloalkyl, (C_3-C_6)halocycloalkyl, (C_2-C_6)alkenyl, (C_3-C_6)cycloalkenyl, (C_3-C_6)alkadienyl, (C_2-C_6)alkynyl, (C_1-C_6)alkoxy, (C_3-C_6)cycloalkoxy, (C_1-C_6)haloalkoxy, (C_3-C_6)cyclohaloalkoxy, (C_2-C_6)alkenyloxy, (C_2-C_6)alkynyloxy, (C_1-C_6)alkythio, (C_3-C_6)cycloalkylthio, (C_1-C_6)haloalkylthio, (C_3-C_6)halocycloalkythio, (C_2-C_6)alkenylthio, (C_2-C_6)alkynylthio, (C_1-C_6)alkylsulfinyl, (C_3-C_6)cycloalkysulfinyl, (C_1-C_6)haloalkylsulfinyl, (C_3-C_6)halocycloalkylsulfinyl, (C_2-C_6)alkenylsulfinyl, (C_3-C_6)cycloalkenylsulfinyl, (C_2-C_6)alkynylsulfinyl, (C_1-C_6)alkylsulfonyl, (C_3-C_6)cycloalkysulfonyl, (C_1-C_6)haloalkylsulfonyl, (C_3-C_6)halocycloalkylsulfonyl, (C_1-C_6)alkylsulfinyl, (C_3-C_6)cycloalkysulfinyl, (C_1-C_6)haloalkylsulfinyl, (C_3-C_6)halocycloalkylsulfinyl, (C_1-C_6)alkylamino, (C_3-C_6)cycloalkylamino, di(C_1-C_6)alkylamino, di(C_3-C_6)(cycloalkyl)amino, (C_1-C_6)alkoxy(C_1-C_6)alkyl, (C_3-C_6)cycloalkoxyalkyl, (C_1-C_6)alkoxy(C_3-C_6)cycloalkyl, (C_1-C_6)alkylthio(C_1-C_6)alkyl, (C_1-C_6)alkylsulfinyl(C_1-C_6)alkyl, (C_1-C_6)alkylsulfonyl(C_1-C_6)alkyl, (C_1-C_6)alkylamino(C_1-C_6)alkyl, di(C_1-C_6)alkylamino(C_1-C_6)alkyl, (C_1-C_6)alkylcarbonyl, (C_3-C_6)cycloalkylcarbonyl, (C_1-C_6)alkoxycarbonyl, (C_1-C_6)alkylaminocarbonyl, (C_3-C_6)cycloalkylaminocarbonyl, di(C_1-C_6)alkylaminocarbonyl, di(C_3-C_6)(cycloalkyl)aminocarbonyl, cyano(C_1-C_6)alkyl, or tri(C_1-C_6)alkylsilyl; or

ii unsubstituted or substituted phenyl, phenyl(C_1-C_6)alkyl, heterocyclyl, phenoxy, heterocyclyloxy, benzoyl, heterocyclylcarbonyl, phenylthio, heterocyclylthio, phenylsulfonyl, or heterocyclylsulfonyl, wherein one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl and cyano(C_1-C_3)alkyl;

wherein in said substituted phenyl, 1-naphthyl, 2-naphthyl, phenyl(C_1-C_3)alkyl, phenyl(C_2-C_3)alkenyl, naphthyl(C_1-C_3)alkyl, phenoxy(C_1-C_3)alkyl, phenylamino, pyridyl, pyrazinyl, pyridazinyl, pyrimidinyl, furanyl, thiophenyl, benzothiophenyl, benzofuranyl, isoxazolyl, imidazolyl or other heterocyclyl, two adjacent substituted positions may be joined together with the atoms to which they are attached to form an unsubstituted or substituted, unsaturated, partially unsaturated, or saturated 4-, 5-, 6- or 7-membered carbocyclic or heterocyclic ring wherein the heterocyclic ring contains from one to three heteroatoms selected from N, O, or S; and one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, cyano(C_1-C_3)alkyl, oxo, and methoxyimino;

$\mathbf{R^5}$ is:

(a) (C_1-C_6)alkyl, (C_3-C_6)cycloalkyl, (C_1-C_6)haloalkyl, (C_3-C_6)halocycloalkyl, (C_2-C_6)alkenyl, (C_2-C_6)haloalkenyl, (C_2-C_6)alkynyl, (C_2-C_6)haloalkynyl, (C_1-C_6)alkoxy(C_1-C_6)alkyl, (C_1-C_6)althylthio(C_1-C_6)alkyl, (C_1-C_6)alkylsulfinyl(C_1-C_6)alkyl, (C_1-C_6)alkylsulfonyl(C_1-C_6)alkyl, (C_1-C_6)alkylamino(C_1-C_6)alkyl, di(C_1-C_6)alkylamino(C_1-C_6)alkyl, (C_1-C_6)alkylcarbonyl(C_1-C_6)alkyl, or cyano(C_1-C_6)alkyl; or

(b) unsubstituted or substituted phenyl, 1-naphthyl, 2-naphthyl, phenyl(C_1-C_3)alkyl, phenyl(C_2-C_3)alkenyl, naphthyl(C_1-C_3)alkyl, phenoxy(C_1-C_3)alkyl, phenylamino, pyridyl, pyrazinyl, pyridazinyl, pyrimidinyl, furanyl, thiophenyl, benzothiophenyl, benzofuranyl, isoxazolyl, imidazolyl or other heterocyclyl, where one to four substituents are independently selected from:

i cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_6)alkyl, (C_3-C_6)cycloalkyl, (C_1-C_6)haloalkyl, (C_3-C_6)halocycloalkyl, (C_2-C_6)alkenyl, (C_3-C_6)cycloalkenyl, (C_3-C_6)alkadienyl, (C_2-C_6)alkynyl, (C_1-C_6)alkoxy, (C_3-C_6)cycloalkoxy, (C_1-C_6)haloalkoxy, (C_3-C_6)cyclohaloalkoxy, (C_2-C_6)alkenyloxy, (C_2-C_6)alkynyloxy, (C_1-C_6)alkythio, (C_3-

C_6)cycloalkylthio, (C_1-C_6)haloalkylthio, (C_3-C_6)halocycloalkythio, (C_2-C_6)alkenylthio, (C_2-C_6)alkynylthio, (C_1-C_6)alkylsulfinyl, (C_3-C_6)cycloalkysulfinyl, (C_1-C_6)haloalkylsulfinyl, (C_3-C_6)halocycloalkylsulfinyl, (C_2-C_6)alkenylsulfinyl, (C_3-C_6)cycloalkenylsulfinyl, (C_2-C_6)alkynylsulfinyl, (C_1-C_6)alkylsulfonyl, (C_3-C_6)cycloalkysulfonyl, (C_1-C_6)haloalkylsulfonyl, (C_3-C_6)halocycloalkylsulfonyl, (C_1-C_6)alkylsulfinyl, (C_3-C_6)cycloalkysulfinyl, (C_1-C_6)haloalkylsulfinyl, (C_3-C_6)halocycloalkylsulfinyl, (C_1-C_6)alkylamino, (C_3-C_6)cycloalkylamino, di(C_1-C_6)alkylamino, di(C_3-C_6)(cycloalkyl)amino, (C_1-C_6)alkoxy(C_1-C_6)alkyl, (C_3-C_6)cycloalkoxyalkyl, (C_1-C_6)alkoxy(C_3-C_6)cycloalkyl, (C_1-C_6)alkylthio(C_1-C_6)alkyl, (C_1-C_6)alkylsulfinyl(C_1-C_6)alkyl, (C_1-C_6)alkylsulfonyl(C_1-C_6)alkyl, (C_1-C_6)alkylamino(C_1-C_6)alkyl, di(C_1-C_6)alkylamino(C_1-C_6)alkyl, (C_1-C_6)alkylcarbonyl, (C_3-C_6)cycloalkylcarbonyl, (C_1-C_6)alkoxycarbonyl, (C_1-C_6)alkylaminocarbonyl, (C_3-C_6)cycloalkylaminocarbonyl, di(C_1-C_6)alkylaminocarbonyl, di(C_3-C_6)(cycloalkyl)aminocarbonyl, cyano(C_1-C_6)alkyl, or tri(C_1-C_6)alkylsilyl; or

ii unsubstituted or substituted phenyl, phenyl(C_1-C_6)alkyl, heterocyclyl, phenoxy, heterocyclyloxy, benzoyl, heterocyclylcarbonyl, phenylthio, heterocyclylthio, phenylsulfonyl, or heterocyclylsulfonyl, wherein one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, and cyano(C_1-C_3)alkyl;

wherein in said substituted phenyl, 1-naphthyl, 2-naphthyl, phenyl(C_1-C_3)alkyl, phenyl(C_2-C_3)alkenyl, naphthyl(C_1-C_3)alkyl, phenoxy(C_1-C_3)alkyl, phenylamino, pyridyl, pyrazinyl, pyridazinyl, pyrimidinyl, furanyl, thiophenyl, benzothiophenyl, benzofuranyl, isoxazolyl, imidazolyl or other heterocyclyl, two adjacent substituted positions may be joined together with the atoms to which they are attached to form an unsubstituted or substituted, unsaturated, partially unsaturated, or saturated 4-, 5-, 6- or 7-membered carbocyclic or heterocyclic ring wherein the heterocyclic ring contains from one to three heteroatoms selected from N, O, or S; and one to four

substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, $(C_1$-$C_3)$alkyl, $(C_1$-$C_3)$haloalkyl, $(C_1$-$C_3)$alkoxy, $(C_1$-$C_3)$haloalkoxy, $(C_1$-$C_3)$alkythio, $(C_1$-$C_3)$haloalkylthio, $(C_1$-$C_3)$alkylsulfonyl, $(C_1$-$C_3)$alkylamino, di$(C_1$-$C_3)$alkylamino, $(C_1$-$C_2)$alkoxy$(C_1$-$C_2)$alkyl, $(C_1$-$C_2)$alkylthio$(C_1$-$C_2)$alkyl, $(C_1$-$C_2)$alkylsulfonyl$(C_1$-$C_2)$alkyl, $(C_1$-$C_2)$alkylamino$(C_1$-$C_2)$alkyl, di$(C_1$-$C_2)$alkylamino$(C_1$-$C_2)$alkyl, $(C_1$-$C_3)$alkylcarbonyl, $(C_1$-$C_3)$alkoxycarbonyl, $(C_1$-$C_3)$alkylaminocarbonyl, di$(C_1$-$C_3)$alkylaminocarbonyl, cyano$(C_1$-$C_3)$alkyl, oxo, and methoxyimino; and

R^6 and R^7 are independently selected from:

(a) $(C_1$-$C_6)$alkyl, $(C_3$-$C_6)$cycloalkyl, $(C_1$-$C_6)$haloalkyl, $(C_3$-$C_6)$halocycloalkyl, $(C_2$-$C_6)$alkenyl, $(C_2$-$C_6)$haloalkenyl, $(C_2$-$C_6)$alkynyl, $(C_2$-$C_6)$haloalkynyl, $(C_1$-$C_6)$alkoxy, $(C_3$-$C_6)$cycloalkoxy, $(C_1$-$C_6)$haloalkoxy, $(C_3$-$C_6)$halocycloalkoxy, $(C_2$-$C_6)$alkenyloxy, $(C_2$-$C_6)$alkynyloxy, $(C_1$-$C_6)$alkylthio, $(C_3$-$C_6)$cycloalkylthio, $(C_1$-$C_6)$haloalkylthio, $(C_3$-$C_6)$halocycloalkylthio, $(C_1$-$C_6)$alkylamino, $(C_3$-$C_6)$cycloalkylamino, $(C_1$-$C_6)$haloalkylamino, $(C_3$-$C_6)$halocycloalkylamino, di$(C_1$-$C_6)$alkylamino, di$(C_3$-$C_6)$cycloalkylamino, di$(C_1$-$C_6)$haloalkylamino, di$(C_3$-$C_6)$halocycloalkylamino, $(C_1$-$C_6)$alkoxy$(C_1$-$C_6)$alkyl, $(C_1$-$C_6)$althylthio$(C_1$-$C_6)$alkyl, $(C_1$-$C_6)$alkylsulfinyl$(C_1$-$C_6)$alkyl, $(C_1$-$C_6)$alkylsulfonyl$(C_1$-$C_6)$alkyl, $(C_1$-$C_6)$alkylamino$(C_1$-$C_6)$alkyl, di$(C_1$-$C_6)$alkylamino$(C_1$-$C_6)$alkyl, $(C_1$-$C_6)$alkylcarbonyl$(C_1$-$C_6)$alkyl, or cyano$(C_1$-$C_6)$alkyl; or

(b) unsubstituted or substituted phenyl, phenyl$(C_1$-$C_6)$alkyl, heterocyclyl, phenoxy, heterocycloxy, phenylthio, heterocyclylthio, naphthyl, phenylamino, heterocyclylamino, N-phenyl-N-$(C_1$-$C_6)$alkylamino, or N-heterocyclyl-N-$(C_1$-$C_6)$alkylamino wherein one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, $(C_1$-$C_3)$alkyl, $(C_1$-$C_3)$haloalkyl, $(C_1$-$C_3)$alkoxy, $(C_1$-$C_3)$haloalkoxy, $(C_1$-$C_3)$alkythio, $(C_1$-$C_3)$haloalkylthio, $(C_1$-$C_3)$alkylsulfonyl, $(C_1$-$C_3)$alkylamino, di$(C_1$-$C_3)$alkylamino, $(C_1$-$C_2)$alkoxy$(C_1$-$C_2)$alkyl, $(C_1$-$C_2)$alkylthio$(C_1$-$C_2)$alkyl, $(C_1$-$C_2)$alkylsulfonyl$(C_1$-$C_2)$alkyl, $(C_1$-$C_2)$alkylamino$(C_1$-$C_2)$alkyl, di$(C_1$-$C_2)$alkylamino$(C_1$-$C_2)$alkyl, $(C_1$-$C_3)$alkylcarbonyl, $(C_1$-$C_3)$alkoxycarbonyl, $(C_1$-$C_3)$alkylaminocarbonyl, di$(C_1$-$C_3)$alkylaminocarbonyl, and cyano$(C_1$-$C_3)$alkyl;

wherein R^6 and R^7 may be joined together with the phosphorus to which they are attached to form an unsaturated, partially unsaturated, or saturated, unsubstituted or substituted 4- to 7-membered

heterocyclic ring wherein the heterocyclic ring contains one phosphorus and from zero to three heteroatoms selected from N, O, or S; and from one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, cyano(C_1-C_3)alkyl, oxo, and methoxyimino;

b) introducing into the cell:

1) a DNA construct comprising:

a) an exogenous gene encoding the polypeptide; and

b) a response element;

wherein the gene is under the control of the response element; and

2) an ecdysone receptor complex comprising:

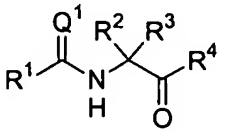
a) a DNA binding domain;

b) a binding domain for the ligand; and

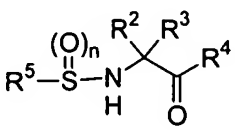
c) a transactivation domain; and

c) exposing the cell to the ligand.

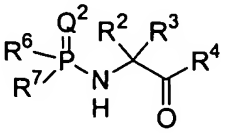
14. **(Original)** A method for regulating endogenous or heterologous gene expression in a transgenic subject comprising contacting a ligand with an ecdysone receptor complex within the cells of the subject wherein the cells further contain a DNA binding sequence for the ecdysone receptor complex when in combination with the ligand and wherein formation of an ecdysone receptor complex-ligand-DNA binding sequence complex induces expression of the gene, and where the ligand has the following formula:



I



II



III

wherein Q^1 and Q^2 are independently selected from the group consisting of O and S;

n = 1 or 2;

R^1 is:

(a) (C_1-C_6)alkyl, (C_3-C_6)cycloalkyl, (C_1-C_6)haloalkyl, (C_3-C_6)halocycloalkyl, (C_2-C_6)alkenyl, (C_2-C_6)haloalkenyl, (C_2-C_6)alkynyl, (C_2-C_6)haloalkynyl, (C_1-C_6)alkoxy, (C_3-C_6)cycloalkoxy, (C_1-C_6)haloalkoxy, (C_3-C_6)halocycloalkoxy, (C_2-C_6)alkenyloxy, (C_2-C_6)alkynyloxy, (C_1-C_6)alkylthio, (C_3-C_6)cycloalkylthio, (C_1-C_6)haloalkylthio, (C_3-C_6)halocycloalkylthio, (C_1-C_6)alkylamino, (C_3-C_6)cycloalkylamino, (C_1-C_6)haloalkylamino, (C_3-C_6)halocycloalkylamino, di(C_1-C_6)alkylamino, di(C_3-C_6)cycloalkylamino, di(C_1-C_6)haloalkylamino, di(C_3-C_6)halocycloalkylamino, (C_1-C_6)alkoxy(C_1-C_6)alkyl, (C_1-C_6)althylthio(C_1-C_6)alkyl, (C_1-C_6)alkylsulfinyl(C_1-C_6)alkyl, (C_1-C_6)alkylsulfonyl(C_1-C_6)alkyl, (C_1-C_6)alkylamino(C_1-C_6)alkyl, di(C_1-C_6)alkylamino(C_1-C_6)alkyl, (C_1-C_6)alkylcarbonyl(C_1-C_6)alkyl, or cyano(C_1-C_6)alkyl; or

(b) unsubstituted or substituted phenyl, 1-naphthyl, 2-naphthyl, phenyl(C_1-C_3)alkyl, phenyl(C_2-C_3)alkenyl, naphthyl(C_1-C_3)alkyl, phenoxy(C_1-C_3)alkyl, phenylamino, pyridyl, pyrazinyl, pyridazinyl, pyrimidinyl, furanyl, thiophenyl, benzothiophenyl, benzofuranyl, isoxazolyl, imidazolyl or other heterocyclyl, where the substituents are independently selected from one to four of the following:

i cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_6)alkyl, (C_3-C_6)cycloalkyl, (C_1-C_6)haloalkyl, (C_3-C_6)halocycloalkyl, (C_2-C_6)alkenyl, (C_3-C_6)cycloalkenyl, (C_3-C_6)alkadienyl, (C_2-C_6)alkynyl, (C_1-C_6)alkoxy, (C_3-C_6)cycloalkoxy, (C_1-C_6)haloalkoxy, (C_3-C_6)cyclohaloalkoxy, (C_2-C_6)alkenyloxy, (C_2-C_6)alkynyloxy, (C_1-C_6)alkythio, (C_3-C_6)cycloalkylthio, (C_1-C_6)haloalkylthio, (C_3-C_6)halocycloalkythio, (C_2-C_6)alkenylthio, (C_2-C_6)alkynylthio, (C_1-C_6)alkylsulfinyl, (C_3-C_6)cycloalkysulfinyl, (C_1-C_6)haloalkylsulfinyl, (C_3-C_6)halocycloalkylsulfinyl, (C_2-C_6)alkenylsulfinyl, (C_3-C_6)cycloalkenylsulfinyl, (C_2-C_6)alkynylsulfinyl, (C_1-C_6)alkylsulfonyl, (C_3-C_6)cycloalkysulfonyl, (C_1-C_6)haloalkylsulfonyl, (C_3-C_6)halocycloalkylsulfonyl, (C_1-C_6)alkylsulfinyl, (C_3-C_6)cycloalkysulfinyl, (C_1-C_6)haloalkylsulfinyl, (C_3-C_6)halocycloalkylsulfinyl, (C_1-C_6)alkylamino, (C_3-C_6)cycloalkylamino, di(C_1-C_6)alkylamino, di(C_3-C_6)(cycloalkyl)amino, (C_1-C_6)alkoxy(C_1-C_6)alkyl, (C_3-C_6)cycloalkoxyalkyl, (C_1-C_6)alkoxy$(C_3-$

C_6)cycloalkyl, (C_1-C_6)alkylthio(C_1-C_6)alkyl, (C_1-C_6)alkylsulfinyl(C_1-C_6)alkyl, (C_1-C_6)alkylsulfonyl(C_1-C_6)alkyl, (C_1-C_6)alkylamino(C_1-C_6)alkyl, di(C_1-C_6)alkylamino(C_1-C_6)alkyl, (C_1-C_6)alkylcarbonyl, (C_3-C_6)cycloalkylcarbonyl, (C_1-C_6)alkoxycarbonyl, (C_1-C_6)alkylaminocarbonyl, (C_3-C_6)cycloalkylaminocarbonyl, di(C_1-C_6)alkylaminocarbonyl, di(C_3-C_6)(cycloalkyl)aminocarbonyl, cyano(C_1-C_6)alkyl, or tri(C_1-C_6)alkylsilyl; or

ii unsubstituted or substituted phenyl, phenyl(C_1-C_6)alkyl, heterocyclyl, phenoxy, heterocyclyloxy, benzoyl, heterocyclylcarbonyl, phenylthio, heterocyclylthio, phenylsulfonyl, or heterocyclylsulfonyl wherein one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl or cyano(C_1-C_3)alkyl;

wherein in said substituted phenyl, 1-naphthyl, 2-naphthyl, phenyl(C_1-C_3)alkyl, phenyl(C_2-C_3)alkenyl, naphthyl(C_1-C_3)alkyl, phenoxy(C_1-C_3)alkyl, phenylamino, pyridyl, pyrazinyl, pyridazinyl, pyrimidinyl, furanyl, thiophenyl, benzothiophenyl, benzofuranyl, isoxazolyl, imidazolyl or other heterocyclyl, two adjacent substituted positions may be joined together with the atoms to which they are attached to form an unsubstituted or substituted, unsaturated, partially unsaturated, or saturated 4-, 5-, 6- or 7-membered carbocyclic or heterocyclic ring wherein:

the heterocyclic ring contains from one to three heteroatoms selected from N, O, or S; and one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-

C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, cyano(C_1-C_3)alkyl, oxo, and methoxyimino;

R^2 and R^3 are independently selected from:

(a) cyano, aminocarbonyl, carboxy, (C_1-C_6)alkyl, (C_3-C_6)cycloalkyl, halo(C_1-C_6)alkyl, (C_3-C_6)halocycloalkyl, (C_2-C_6)alkenyl, (C_3-C_6)cycloalkenyl, (C_2-C_6)haloalkenyl, (C_2-C_6)alkynyl, (C_1-C_6)alkylsulfonyl, (C_1-C_6)alkoxy(C_1-C_6)alkyl, (C_1-C_6)althylthio(C_1-C_6)alkyl, (C_1-C_6)alkylsulfinyl(C_1-C_6)alkyl, (C_1-C_6)alkylsulfonyl(C_1-C_6)alkyl, (C_1-C_6)alkylamino(C_1-C_6)alkyl, di(C_1-C_6)alkylamino(C_1-C_6)alkyl, (C_1-C_6)alkylcarbonyl, (C_1-C_6)alkylcarbonyl(C_1-C_6)alkyl, (C_1-C_6)alkylaminocarbonyl, di(C_1-C_6)alkylaminocarbonyl, (C_1-C_6)alkylaminocarbonyl(C_1-C_6)alkyl, di(C_1-C_6)alkylaminocarbonyl(C_1-C_6)alkyl, (C_1-C_6)alkylcarbonylamino(C_1-C_6)alkyl, (C_1-C_6)alkoxycarbonyl, (C_1-C_6)alkoxycarbonyl(C_1-C_6)alkyl, cyano(C_1-C_6)alkyl, hydroxy(C_1-C_6)alkyl, or carboxy(C_1-C_6)alkyl; or

(b) unsubstituted or substituted phenyl, phenyl(C_1-C_6)alkyl, benzoyl, naphthyl, pyridyl, pyrazinyl, pyridazinyl, pyrimidinyl, furanyl, thiophenyl, benzothiophenyl, benzofuranyl, isoxazolyl, imidazolyl or other heterocyclyl, heterocyclylcarbonyl, wherein one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, and cyano(C_1-C_3)alkyl;

wherein R^2 and R^3 may be joined together with the carbon to which they are attached to form an unsubstituted or substituted, partially unsaturated or saturated 3-, 4-, 5-, 6-, 7- or 8-membered carbocyclic or heterocyclic ring wherein the heterocyclic ring contains from one to three heteroatoms selected from O, N, or S; and one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl,

$(C_1$-$C_3)$alkylcarbonyl, $(C_1$-$C_4)$alkoxycarbonyl, $(C_1$-$C_4)$alkoxycarbonyl$(C_1$-$C_4)$alkyl, $(C_1$-$C_4)$alkoxycarbonylcarbonyl, $(C_1$-$C_3)$alkylaminocarbonyl, di$(C_1$-$C_3)$alkylaminocarbonyl, cyano$(C_1$-$C_3)$alkyl, oxo, methoxyimino, and spiro-$(C_1$-$C_4)$alkadioxy;

$\mathbf{R^4}$ is selected from:

(a) $(C_1$-$C_6)$alkyl, $(C_3$-$C_6)$cycloalkyl, $(C_1$-$C_6)$haloalkyl, $(C_3$-$C_6)$halocycloalkyl, $(C_2$-$C_6)$alkenyl, $(C_2$-$C_6)$haloalkenyl, $(C_2$-$C_6)$alkynyl, $(C_2$-$C_6)$haloalkynyl, $(C_1$-$C_6)$alkoxy, $(C_3$-$C_6)$cycloalkoxy, $(C_1$-$C_6)$haloalkoxy, $(C_3$-$C_6)$halocycloalkoxy, $(C_2$-$C_6)$alkenyloxy, $(C_2$-$C_6)$alkynyloxy, $(C_1$-$C_6)$alkylthio, $(C_3$-$C_6)$cycloalkylthio, $(C_1$-$C_6)$haloalkylthio, $(C_3$-$C_6)$halocycloalkylthio, $(C_1$-$C_6)$alkylamino, $(C_3$-$C_6)$cycloalkylamino, $(C_1$-$C_6)$haloalkylamino, $(C_3$-$C_6)$halocycloalkylamino, di$(C_1$-$C_6)$alkylamino, di$(C_3$-$C_6)$cycloalkylamino, di$(C_1$-$C_6)$haloalkylamino, di$(C_3$-$C_6)$halocycloalkylamino, $(C_1$-$C_6)$alkoxy$(C_1$-$C_6)$alkyl, $(C_1$-$C_6)$althylthio$(C_1$-$C_6)$alkyl, $(C_1$-$C_6)$alkylsulfinyl$(C_1$-$C_6)$alkyl, $(C_1$-$C_6)$alkylsulfonyl$(C_1$-$C_6)$alkyl, $(C_1$-$C_6)$alkylamino$(C_1$-$C_6)$alkyl, di$(C_1$-$C_6)$alkylamino$(C_1$-$C_6)$alkyl, $(C_1$-$C_6)$alkylcarbonyl$(C_1$-$C_6)$alkyl, or cyano$(C_1$-$C_6)$alkyl; or

(b) unsubstituted or substituted phenyl, 1-naphthyl, 2-naphthyl, phenyl$(C_1$-$C_3)$alkyl, phenyl$(C_2$-$C_3)$alkenyl, naphthyl$(C_1$-$C_3)$alkyl, phenoxy$(C_1$-$C_3)$alkyl, phenylamino, pyridyl, pyrazinyl, pyridazinyl, pyrimidinyl, furanyl, thiophenyl, benzothiophenyl, benzofuranyl, isoxazolyl, imidazolyl or other heterocyclyl, wherein one to four substituents are independently selected from:

i cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, $(C_1$-$C_6)$alkyl, $(C_3$-$C_6)$cycloalkyl, $(C_1$-$C_6)$haloalkyl, $(C_3$-$C_6)$halocycloalkyl, $(C_2$-$C_6)$alkenyl, $(C_3$-$C_6)$cycloalkenyl, $(C_3$-$C_6)$alkadienyl, $(C_2$-$C_6)$alkynyl, $(C_1$-$C_6)$alkoxy, $(C_3$-$C_6)$cycloalkoxy, $(C_1$-$C_6)$haloalkoxy, $(C_3$-$C_6)$cyclohaloalkoxy, $(C_2$-$C_6)$alkenyloxy, $(C_2$-$C_6)$alkynyloxy, $(C_1$-$C_6)$alkythio, $(C_3$-$C_6)$cycloalkylthio, $(C_1$-$C_6)$haloalkylthio, $(C_3$-$C_6)$halocycloalkythio, $(C_2$-$C_6)$alkenylthio, $(C_2$-$C_6)$alkynylthio, $(C_1$-$C_6)$alkylsulfinyl, $(C_3$-$C_6)$cycloalkysulfinyl, $(C_1$-$C_6)$haloalkylsulfinyl, $(C_3$-$C_6)$halocycloalkylsulfinyl, $(C_2$-$C_6)$alkenylsulfinyl, $(C_3$-$C_6)$cycloalkenylsulfinyl, $(C_2$-$C_6)$alkynylsulfinyl, $(C_1$-$C_6)$alkylsulfonyl, $(C_3$-$C_6)$cycloalkysulfonyl, $(C_1$-$C_6)$haloalkylsulfonyl, $(C_3$-$C_6)$halocycloalkylsulfonyl, $(C_1$-$C_6)$alkylsulfinyl, $(C_3$-$C_6)$cycloalkysulfinyl, $(C_1$-$C_6)$haloalkylsulfinyl, $(C_3$-$C_6)$halocycloalkylsulfinyl, $(C_1$-$C_6)$alkylamino, $(C_3$-$C_6)$cycloalkylamino, di$(C_1$-

C_6)alkylamino, di(C_3-C_6)(cycloalkyl)amino, (C_1-C_6)alkoxy(C_1-C_6)alkyl, (C_3-C_6)cycloalkoxyalkyl, (C_1-C_6)alkoxy(C_3-C_6)cycloalkyl, (C_1-C_6)alkylthio(C_1-C_6)alkyl, (C_1-C_6)alkylsulfinyl(C_1-C_6)alkyl, (C_1-C_6)alkylsulfonyl(C_1-C_6)alkyl, (C_1-C_6)alkylamino(C_1-C_6)alkyl, di(C_1-C_6)alkylamino(C_1-C_6)alkyl, (C_1-C_6)alkylcarbonyl, (C_3-C_6)cycloalkylcarbonyl, (C_1-C_6)alkoxycarbonyl, (C_1-C_6)alkylaminocarbonyl, (C_3-C_6)cycloalkylaminocarbonyl, di(C_1-C_6)alkylaminocarbonyl, di(C_3-C_6)(cycloalkyl)aminocarbonyl, cyano(C_1-C_6)alkyl, or tri(C_1-C_6)alkylsilyl; or

ii unsubstituted or substituted phenyl, phenyl(C_1-C_6)alkyl, heterocyclyl, phenoxy, heterocyclyloxy, benzoyl, heterocyclylcarbonyl, phenylthio, heterocyclylthio, phenylsulfonyl, or heterocyclylsulfonyl, wherein one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl and cyano(C_1-C_3)alkyl;

wherein in said substituted phenyl, 1-naphthyl, 2-naphthyl, phenyl(C_1-C_3)alkyl, phenyl(C_2-C_3)alkenyl, naphthyl(C_1-C_3)alkyl, phenoxy(C_1-C_3)alkyl, phenylamino, pyridyl, pyrazinyl, pyridazinyl, pyrimidinyl, furanyl, thiophenyl, benzothiophenyl, benzofuranyl, isoxazolyl, imidazolyl or other heterocyclyl, two adjacent substituted positions may be joined together with the atoms to which they are attached to form an unsubstituted or substituted, unsaturated, partially unsaturated, or saturated 4-, 5-, 6- or 7-membered carbocyclic or heterocyclic ring wherein the heterocyclic ring contains from one to three heteroatoms selected from N, O, or S; and one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-

C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, cyano(C_1-C_3)alkyl, oxo, and methoxyimino;

$\mathbf{R^5}$ is:

(a) (C_1-C_6)alkyl, (C_3-C_6)cycloalkyl, (C_1-C_6)haloalkyl, (C_3-C_6)halocycloalkyl, (C_2-C_6)alkenyl, (C_2-C_6)haloalkenyl, (C_2-C_6)alkynyl, (C_2-C_6)haloalkynyl, (C_1-C_6)alkoxy(C_1-C_6)alkyl, (C_1-C_6)althylthio(C_1-C_6)alkyl, (C_1-C_6)alkylsulfinyl(C_1-C_6)alkyl, (C_1-C_6)alkylsulfonyl(C_1-C_6)alkyl, (C_1-C_6)alkylamino(C_1-C_6)alkyl, di(C_1-C_6)alkylamino(C_1-C_6)alkyl, (C_1-C_6)alkylcarbonyl(C_1-C_6)alkyl, or cyano(C_1-C_6)alkyl; or

(b) unsubstituted or substituted phenyl, 1-naphthyl, 2-naphthyl, phenyl(C_1-C_3)alkyl, phenyl(C_2-C_3)alkenyl, naphthyl(C_1-C_3)alkyl, phenoxy(C_1-C_3)alkyl, phenylamino, pyridyl, pyrazinyl, pyridazinyl, pyrimidinyl, furanyl, thiophenyl, benzothiophenyl, benzofuranyl, isoxazolyl, imidazolyl or other heterocyclyl, where one to four substituents are independently selected from:

i cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_6)alkyl, (C_3-C_6)cycloalkyl, (C_1-C_6)haloalkyl, (C_3-C_6)halocycloalkyl, (C_2-C_6)alkenyl, (C_3-C_6)cycloalkenyl, (C_3-C_6)alkadienyl, (C_2-C_6)alkynyl, (C_1-C_6)alkoxy, (C_3-C_6)cycloalkoxy, (C_1-C_6)haloalkoxy, (C_3-C_6)cyclohaloalkoxy, (C_2-C_6)alkenyloxy, (C_2-C_6)alkynyloxy, (C_1-C_6)alkythio, (C_3-C_6)cycloalkylthio, (C_1-C_6)haloalkylthio, (C_3-C_6)halocycloalkythio, (C_2-C_6)alkenylthio, (C_2-C_6)alkynylthio, (C_1-C_6)alkylsulfinyl, (C_3-C_6)cycloalkysulfinyl, (C_1-C_6)haloalkylsulfinyl, (C_3-C_6)halocycloalkylsulfinyl, (C_2-C_6)alkenylsulfinyl, (C_3-C_6)cycloalkenylsulfinyl, (C_2-C_6)alkynylsulfinyl, (C_1-C_6)alkylsulfonyl, (C_3-C_6)cycloalkysulfonyl, (C_1-C_6)haloalkylsulfonyl, (C_3-C_6)halocycloalkylsulfonyl, (C_1-C_6)alkylsulfinyl, (C_3-C_6)cycloalkysulfinyl, (C_1-C_6)haloalkylsulfinyl, (C_3-C_6)halocycloalkylsulfinyl, (C_1-C_6)alkylamino, (C_3-C_6)cycloalkylamino, di(C_1-C_6)alkylamino, di(C_3-C_6)(cycloalkyl)amino, (C_1-C_6)alkoxy(C_1-C_6)alkyl, (C_3-C_6)cycloalkoxyalkyl, (C_1-C_6)alkoxy(C_3-C_6)cycloalkyl, (C_1-C_6)alkylthio(C_1-C_6)alkyl, (C_1-C_6)alkylsulfinyl(C_1-C_6)alkyl, (C_1-C_6)alkylsulfonyl(C_1-C_6)alkyl, (C_1-C_6)alkylamino(C_1-C_6)alkyl, di(C_1-C_6)alkylamino(C_1-C_6)alkyl, (C_1-C_6)alkylcarbonyl, (C_3-C_6)cycloalkylcarbonyl, (C_1-C_6)alkoxycarbonyl, (C_1-C_6)alkylaminocarbonyl, (C_3-

C_6)cycloalkylaminocarbonyl, di(C_1-C_6)alkylaminocarbonyl, di(C_3-C_6)(cycloalkyl)aminocarbonyl, cyano(C_1-C_6)alkyl, or tri(C_1-C_6)alkylsilyl; or

ii unsubstituted or substituted phenyl, phenyl(C_1-C_6)alkyl, heterocyclyl, phenoxy, heterocyclyloxy, benzoyl, heterocyclylcarbonyl, phenylthio, heterocyclylthio, phenylsulfonyl, or heterocyclylsulfonyl, wherein one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, and cyano(C_1-C_3)alkyl;

wherein in said substituted phenyl, 1-naphthyl, 2-naphthyl, phenyl(C_1-C_3)alkyl, phenyl(C_2-C_3)alkenyl, naphthyl(C_1-C_3)alkyl, phenoxy(C_1-C_3)alkyl, phenylamino, pyridyl, pyrazinyl, pyridazinyl, pyrimidinyl, furanyl, thiophenyl, benzothiophenyl, benzofuranyl, isoxazolyl, imidazolyl or other heterocyclyl, two adjacent substituted positions may be joined together with the atoms to which they are attached to form an unsubstituted or substituted, unsaturated, partially unsaturated, or saturated 4-, 5-, 6- or 7-membered carbocyclic or heterocyclic ring wherein the heterocyclic ring contains from one to three heteroatoms selected from N, O, or S; and one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, cyano(C_1-C_3)alkyl, oxo, and methoxyimino; and

R^6 and R^7 are independently selected from:

(a) (C_1-C_6)alkyl, (C_3-C_6)cycloalkyl, (C_1-C_6)haloalkyl, (C_3-C_6)halocycloalkyl, (C_2-C_6)alkenyl, (C_2-C_6)haloalkenyl, (C_2-C_6)alkynyl, (C_2-C_6)haloalkynyl, (C_1-C_6)alkoxy, (C_3-

C_6)cycloalkoxy, (C_1-C_6)haloalkoxy, (C_3-C_6)halocycloalkoxy, (C_2-C_6)alkenyloxy, (C_2-C_6)alkynyloxy, (C_1-C_6)alkylthio, (C_3-C_6)cycloalkylthio, (C_1-C_6)haloalkylthio, (C_3-C_6)halocycloalkylthio, (C_1-C_6)alkylamino, (C_3-C_6)cycloalkylamino, (C_1-C_6)haloalkylamino, (C_3-C_6)halocycloalkylamino, di(C_1-C_6)alkylamino, di(C_3-C_6)cycloalkylamino, di(C_1-C_6)haloalkylamino, di(C_3-C_6)halocycloalkylamino, (C_1-C_6)alkoxy(C_1-C_6)alkyl, (C_1-C_6)althylthio(C_1-C_6)alkyl, (C_1-C_6)alkylsulfinyl(C_1-C_6)alkyl, (C_1-C_6)alkylsulfonyl(C_1-C_6)alkyl, (C_1-C_6)alkylamino(C_1-C_6)alkyl, di(C_1-C_6)alkylamino(C_1-C_6)alkyl, (C_1-C_6)alkylcarbonyl(C_1-C_6)alkyl, or cyano(C_1-C_6)alkyl; or

(b) unsubstituted or substituted phenyl, phenyl(C_1-C_6)alkyl, heterocyclyl, phenoxy, heterocycloxy, phenylthio, heterocyclylthio, naphthyl, phenylamino, heterocyclylamino, N-phenyl-N-(C_1-C_6)alkylamino, or N-heterocyclyl-N-(C_1-C_6)alkylamino wherein one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, and cyano(C_1-C_3)alkyl;

wherein R^6 and R^7 may be joined together with the phosphorus to which they are attached to form an unsaturated, partially unsaturated, or saturated, unsubstituted or substituted 4- to 7-membered heterocyclic ring wherein the heterocyclic ring contains one phosphorus and from zero to three heteroatoms selected from N, O, or S; and from one to four substituents are independently selected from the group consisting of cyano, nitro, halo, aminocarbonyl, aminothiocarbonyl, carboxy, formyl, hydroxy, amino, carbamoyl, (C_1-C_3)alkyl, (C_1-C_3)haloalkyl, (C_1-C_3)alkoxy, (C_1-C_3)haloalkoxy, (C_1-C_3)alkythio, (C_1-C_3)haloalkylthio, (C_1-C_3)alkylsulfonyl, (C_1-C_3)alkylamino, di(C_1-C_3)alkylamino, (C_1-C_2)alkoxy(C_1-C_2)alkyl, (C_1-C_2)alkylthio(C_1-C_2)alkyl, (C_1-C_2)alkylsulfonyl(C_1-C_2)alkyl, (C_1-C_2)alkylamino(C_1-C_2)alkyl, di(C_1-C_2)alkylamino(C_1-C_2)alkyl, (C_1-C_3)alkylcarbonyl, (C_1-C_3)alkoxycarbonyl, (C_1-C_3)alkylaminocarbonyl, di(C_1-C_3)alkylaminocarbonyl, cyano(C_1-C_3)alkyl, oxo, and methoxyimino.

15. **(Original)** The method of Claim 14, wherein the ecdysone receptor complex is a chimeric ecdysone receptor complex and the DNA construct further comprises a promoter.

16. **(Original)** The method of Claim 14, wherein the subject is a plant.

17. **(Original)** The method of Claim 14, wherein the subject is a mammal.

18. **Cancelled**